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Further Substantial Increase in Gasoline Stocks Shows Basic Cause of Industry's Troubles

By ANDREW M. ROWLEY

GASOLINE stocks at refineries in the United States increased half a million barrels last week according to American Petroleum Institute reports. Nothing so clearly demonstrates the reason the petroleum industry is still beset with troubles and worries instead of enjoying a profitable business. When refiners continue to pile up in storage large quantities of gasoline in the main consuming season of the year, instead of reducing their already excessive, burdensome and costly stocks, the only wonder is that the price structure is holding up as well as it is. Certainly the better prices which have prevailed since spring are not due to any constructive efforts on the part of refiners.

This failure on the part of refiners to better gauge their business is one reason for the present agitation on the part of crude oil producers for some other price basis than that of what the refiner gets for his gasoline. In other words, crude oil producers cannot understand why prices for crude oil should be based on prices for gasoline when so little judgment is exercised in refinery operations which affect gasoline prices. The crude oil producer should not be penalized because of the refusal, failure, or inability of refiners to stabilize their own branch of the industry.

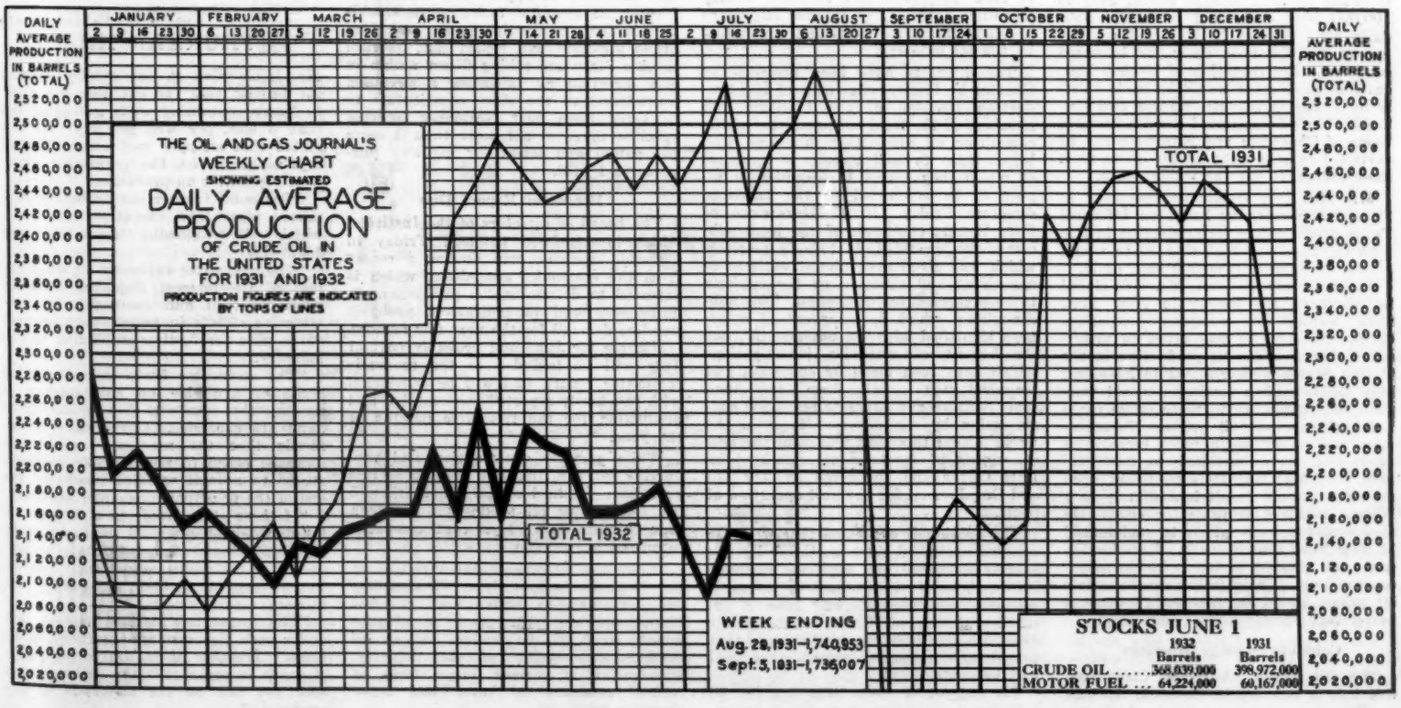
Crude oil production is being held below market requirements. There is considerable talk to the effect production in East Texas is greatly in excess of what the figures show. In other words, it is claimed considerable oil is being produced and transported illegally. With so much talk on this subject it seems rather odd that a real effort is not made to correct this situation if it exists. One prominent oil man made a statement at a meeting of oil men in Tulsa last week that if the illegal production of crude oil in East Texas were stopped, the output of the United States would be practically on the basis advocated by Thurman Hill. It is especially important at this time that the proper authorities in Texas take cognizance of these reports and make a thorough and impartial investigation to the end that such practices, if they exist, be stopped. Producers in all other fields of the State are penalized by illegal production as such oil deprives legally produced oil of markets it otherwise would have.

Crude Oil Production in the United States

Estimated daily average production for the week ending July 16, and a comparison with previous week and one year ago, follows:

	July 16	July 9	July 18, 1931
Oklahoma—			
Oklahoma City	83,210	99,415	144,130
Seminole-St. Louis	112,735	112,490	145,915
Remainder of State	210,390	211,625	230,390
Total Oklahoma	406,335	423,530	520,435
East Texas—			
Lathrop	127,596	126,486	91,314
Kilgore	103,305	103,243	170,586
Joiner	106,487	106,179	146,925
Total East Texas	337,388	335,908	408,825
West Texas	178,312	178,612	205,409
North Central Texas	76,156	74,936	84,424
Texas Panhandle	52,895	51,257	57,721
East Central Texas	57,364	56,561	33,475
Gulf Coast Texas	113,805	113,325	123,831
Southwest Texas	61,349	59,011	64,146
Total State of Texas	877,269	869,610	977,831
Kansas	97,120	95,315	99,315
North Louisiana	30,330	28,705	33,925
Gulf Coast Louisiana	32,632	29,723	28,740
Arkansas	34,115	34,125	41,070
Eastern fields	118,000	119,000	107,000
Rocky Mountain area	79,930	82,191	95,127
California—			
Santa Fe Springs	58,000	59,000	62,750
Long Beach	70,000	69,000	74,000
Playa Del Rey	14,500	14,750	24,500
Elwood	14,250	14,000	26,500
Kettleman Hills	62,250	59,500	82,000
Remainder of State	252,000	251,750	257,500
Total California	471,000	468,000	527,250
Total United States	2,146,731	2,150,199	2,430,693

Decrease, 3,468 Bbls. Daily



Thurman Hill's Plan for Reducing Production Is Receiving Serious Attention of Industry

By ANDREW M. ROWLEY

The petroleum industry is giving considerable thought to the plan advanced by Thurman Hill, public service commissioner of Kansas in charge of matters relating to the oil and gas industry of that State and a member of the Oil States' Advisory Committee, which plan contemplates reduction of crude oil production in the United States to 2,000,000 bbls. daily and limited withdrawals of crude oil from storage.

Following conferences in New York with heads of the leading oil companies, Mr. Hill has visited Texas and Oklahoma, where he explained his plan to meetings of oil men. Texas operators are reported as being in favor of the plan and willing to co-operate in curtailing production in Texas the quantity required as that State's share of the reduction. Kansas operators are said to be willing to reduce production in that State the 10 per cent figured as their share.

The Oklahoma statewide proration committee, at a meeting in Tulsa on Monday of this week expressed its appreciation of the work being done by Mr. Hill and adopted a resolution recommending that steps be taken to reduce excessive gasoline stocks. The committee did not endorse the Hill plan or agree to try to reduce Oklahoma's production further. It did, however, state in the resolution adopted: "If these steps (reducing excessive gasoline stocks) result in a decrease in the demand for currently produced crude, the committee recommends that the producers of Oklahoma adjust their production to contribute their reasonable part in such a program."

Provision of Hill Plan

The Hill plan provides for a domestic crude oil production approximating 2,000,000 bbls. daily or about 150,000 bbls. daily less than current production is averaging. It would limit withdrawals of crude oil from storage during July to 100,000 bbls. daily and to 50,000 bbls. daily after August 1. It includes a figure of 140,000 bbls. daily for imported crude oil. The reduction of 150,000 bbls. daily in production would be made chiefly by Texas, Oklahoma, Kansas and California. It was suggested the nonprorated fields of Oklahoma and Kansas might be curtailed to help make up the quota from these states, if not the whole quota.

Mr. Hill told Oklahoma operators in Tulsa last Friday he had been informed Texas would reduce its production in line with the plan and that that State would curtail an additional 60,000 bbls. daily.

In explaining his plan, Mr. Hill stated he discussed the matter in New York with leading oil company executives there. He said he was given to understand that if crude oil production in the United States were reduced to 2,000,000 bbls. daily, such a condition would warrant and justify an increase of 25 cents a barrel in crude oil prices. No agreement was made for a price increase if production were curtailed to 2,000,000 bbls., but Mr. Hill feels confident such an output would result immediately in a 25-cent increase in price for crude. He also stated he was given to understand in New York that if crude oil production were not reduced in line with decreased consumption it is entirely probable crude oil prices would be reduced 25 cents a barrel very shortly after Labor Day.

Colorado Springs Meetings

The Oil States' Advisory Committee will hold a meeting in Colorado Springs on Thursday of this week at which the Hill plan will receive further consideration. The board of directors of the American Petroleum Institute will meet in Colorado Springs the next day—Friday—and it is probable the Hill plan will come up for discussion before that body.

The matter of prices cannot enter into discussions of the matter by oil men. The point receiving the greatest attention is the relationship of current purchases of crude oil from producers and current withdrawals from storage. There is a strong feeling that while it is necessary for the industry to reduce its burdensome and costly stocks of crude oil, these withdrawals should not be of such a large quantity as to work a hardship on producers and deprive producers of a market they would have were withdrawals from storage limited.

It is also felt that the producing branch of the industry might find it necessary to reduce its output to the figure set by Mr. Hill because of the decrease in consumption and resultant lessened demand for crude oil.

Mr. Hill impressed oil men as being absolutely sincere in his desire and efforts to help stabilize the petroleum industry. Oil men have little or no doubt conditions would be ideal were it possible to hold crude oil production to 2,000,000 bbls. daily and to limit crude oil withdrawals from storage. Such a production undoubtedly would warrant better prices for the product.

Should Limit Gasoline Taxes

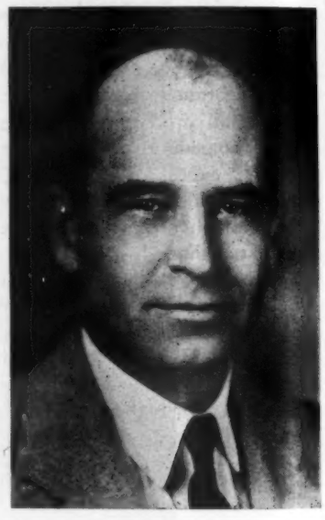
Mr. Hill also is working on a proposition of limiting gasoline taxes by the State and stated he felt the tax should not exceed 2 cents a gallon. He indicated this question was being considered by the Oil States' Advisory Committee with the probability that organization would make an effort to have excessive gasoline taxes reduced. He also stated he believed a reduction should be made in charges for automobile licenses and that, possibly, under such conditions as now exist, some arrangement should be made for permitting licenses to be purchased on the installment basis.

Statewide Proration Committee

At the meeting of the Oklahoma statewide proration committee held Monday to consider Commissioner Hill's proposal for a cut in production, those present included R. H. Prichard of Anderson-Prichard, Inc.; C. H. Lieb, Carter Oil Co.; Alvin Richards, Pure Oil Co.; W. N. Davis, Phillips Petroleum Co.; Ray M. Collins, state umpire; A. V. Hoenig and R. L. Gordon, Indian Territory Illuminating Oil Co.; J. S. Sidwell, Sinclair Prairie Oil Co.; E. R. Filley, The Texas Company; R. B. Roark, Shell Petroleum Corp.; A. L. West, Continental Oil Co.; J. R. McNutt, Pure Oil Co.; C. B. Mapes, Mid-Continent Oil and Gas Association, and W. P. Henry, H. G. Ellis and C. C. Harmon, representing stripper well owners. The meeting was handicapped by the fact that those present did not know to what extent Commissioner Hill wanted Oklahoma production reduced.

Mr. Lieb, president of the Carter Oil Co., stated that his company had had no discussion with anyone about the price of crude oil and that Mr. Farish of the Humble Oil & Refining Co. has recently been saying in public that the present price is as high or higher than conditions warrant.

H. G. Ellis of the Wiser Oil Co., and secretary of the stripper wells committee, said stripper well owners favored



—Photo by The Hodge Studio

THURMAN HILL

Mr. Hill's plan to cut production with the proviso that the cut does not apply to leases containing wells averaging less than 3 bbls. per well per day. He also stated that stripper well owners desired representation on the permanent statewide committee on proration.

After some further discussion the committee went into executive session, at which the following resolution was adopted:

"The committee expresses its appreciation of the interest displayed by Commissioner Hill and commends his constructive efforts in endeavoring to work out a plan for further stabilizing the oil industry.

"The committee finds from the latest statistics available on consumption of gasoline that stocks of this commodity on hand are excessive. It therefore recommends that the necessary appropriate steps be taken to reduce these excessive stocks to normal working stocks at the end of the principal consuming season.

"If these steps result in a decrease in the demand for currently produced crude, the committee recommends that the producers of Oklahoma adjust their production to contribute their reasonable part in such a program.

"The committee further believes that under such circumstances refiners should ratably decrease their drafts on stocks of crude in order that the entire burden may not fall on the shoulders of the producers."

Oil Men Gather at Colorado Springs for Consideration of Problems

COLORADO SPRINGS, Colo., July 18.—Oil men have begun to arrive at the Broadmoor Hotel here for the meeting of the directors of the American Petroleum Institute which President Amos L. Beaty of New York will call to order Friday morning, July 22, to discuss important problems requiring immediate attention by the oil industry.

The directors have been preceded by Charles F. Roeser, chairman of the Production Division of the Institute and members of the legal subcommittee of the committee on production practices, who began today to hold a series of meetings at which they expect to formulate a report to be submitted to the Institute directors Friday. R. E. Hardwicke of Fort Worth, chairman of the legal subcommittee, presided at today's meeting, which was given over almost entirely to organizing and agreeing on the subjects to be presented for discussion. This subcommittee, which is composed of attorneys identified with the oil industry, has the benefit of extensive investigations which have been made by engineers and technical men to help them agree upon some definite and concrete plans for consideration by the directors later in the week. Under this head will come the new conception of development advocated by Earl Oliver and sponsored by The Oil and Gas Journal for the unit operation of pools.

The opinion is expressed that with the detailed technical data gathered by the experts available and with the example before them of the Federal Government requiring some definite unit plan of operation of new oil fields on the public domain before they can be developed that considerable progress towards that goal will be made.

The subject of taxes affecting the oil industry is expected to result in extensive discussion. The directors will have before them the proposed resolution of W. R. Boyd, Jr., executive vice president of the Institute, for appointment of a special committee with paid chairman and secretary to oppose any further increases in gasoline taxes, unreasonable license fees, occupation taxes, etc. Colorado directors will report that oil men in this State are taking direct action in this direction by initiating a proposed amendment to the state constitution to be voted upon next November limiting gasoline taxes to not more than 3 cents per gallon and levies for highway purposes to 1 mill.

Economic Report Due

The board of directors of the Institute, which is scheduled to meet Friday in Colorado Springs, will receive a report from the economics committee, which is expected to determine the production requirements and to indicate a probable gasoline demand for the next few months.

Figures for June and probably part of July will be included in the economic committee report, and will be considered with previously reported consumption and production for the first five months of the year.

While gasoline consumption and production for the first five months of this year have declined slightly more than 5 per cent, crude oil production has been reduced more than 10 per cent, compared to output a year ago.

While the meeting of the directors of the Institute is four days off, members are beginning to arrive and informal discussions will take place in advance among some of the leaders looking to further stabilization of the industry, withdrawals of storage, large stocks of refined products on hand, and other pressing problems.

Problem of Metering Oil in Transit Is Engaging Attention of the Producers in Two States

By L. G. E. BIGNELL
Petroleum Engineering Editor

For many years past much experimenting has been carried on by both manufacturers and oil companies with a view of developing an accurate method of measuring oil passing from one point to another in a system. The degree of success has been varied and the work is still going on and has received an added impetus recently by orders issued by the Railway Commission of Texas and the Governor of Oklahoma requiring that all oil leaving the East Texas and Oklahoma City Pools be metered. The Texas order was effective June 1 and the Oklahoma City Field oil is to be metered after August 1.

In an executive order dated June 21 Governor Murray stated, in part:

"Each and every pipe line owner, manager, or operator of pipe lines, transporting oil out of the field and to all refineries surrounding the field to loading racks and storage tanks, for the purpose of storage, other than storage on the lease, is hereby required to equip immediately, but/and not later than August 1, with meters sufficient to determine as accurately as possible the amount and flow of oil through said pipes, and said pipe line owners, managers, or operators are hereby required to furnish the umpire with the amount of oil coming from each and every well or producer in the field daily, in order that proration may be carried out in truth and in fact, and the law, in all things, upheld."

A complete copy of the executive order will be found on Page 11 of The Oil and Gas Journal of June 23. This order has since been elucidated by a supplemental order of July 11 which appears elsewhere in this issue of the Oil and Gas Journal.

Railway Commission Order

The Railway Commission of Texas under date of May 28 issued an order requiring installation of meters on pipe lines and other facilities handling or transporting crude oil within or out of East Texas Field, the preamble of which is quoted:

"It appearing to this commission, from hearings held in the above cause, especially the hearing at Dallas, Tex., May 10, 1932, which was held pursuant to due notice to consider the adoption of rules and regulations requiring the installation of meters on pipe lines transporting crude oil out of the East Texas Field to market, or to local destination if movement is to refineries or storage within said field, that it is necessary and advisable to enter an order requiring the installation, maintenance and operation of such meters as proposed in order that the orderly conservation and proration program already under way, under orders of this commission, may be continued and orders therein better enforced, thereby prohibiting the waste of crude oil and gas in said field.

"Therefore, as hereinafter provided, it is ordered that all oil moved, transported or conveyed from or within the East Texas Field by pipe lines in the manner hereinafter stated shall be measured by meter and such meters shall be installed, maintained and operated according to regulations herein on all lines conveying, moving or transporting crude oil out of said field to market by main trunk pipe lines, by pipe lines to loading racks for transportation by rail lines, by pipe lines conveying oil to destination at local refineries within or near said field, by pipe line to nearby or local tanks or tank farms for storage in other than what are known as lease tanks or pipe line working tanks used in current operation of pipe line gathering system, or in any wise moved or transported by pipe line to destination from said field."

Orders Compared

The Texas Railroad Commission's order goes on to state that the design of meters to be installed shall be approved by the commission and shall be installed within 30 days after the date of the order. The cost of purchase, installation and operation of meters shall be borne by the owner of the pipe line which transports the crude oil measured by such meters.

"Meters installed and operated as required in Rule 37 herein adopted shall at all times register within a range of accuracy from 98 to 102 per cent; that is to say, a tolerance of error of 2 per cent will be allowed for any meter operated in the East Texas Field as required by these rules before such meter is ordered replaced for inaccuracy, and the transporter of crude oil in whose line such meter is installed shall be held responsible for the proper maintenance and operation thereof according to the regulations of the commission.

"The Railroad Commission of Texas will not specify make or type of meter to be installed, but such make or type of meter shall be installed as will obviate the necessity of installing by-passes, and no by-passes shall be installed around meters."

While the Texas order is quite specific in regard to several details of installation the Oklahoma order only requires that "meters sufficient to determine as accurately as possible the amount and flow of oil through said pipes" be installed. It is expected, however, that the proration board will act in an advisory capacity and assist the Corporation Commission and Lieut. Col. Cicero I. Murray in the decision of details under this general order.

Under these orders it seems possible for the pipe line owners to select meters from any of the following types: Current or displacement meters; orifice meters, including the venturi type, nozzle type or thin plate type; and the impulse-wheel or velocity type meters. Of the displacement type meters there are the piston, rotary or disc type to choose from.

In addition to the meter installation it will be necessary to place ahead of the meters strainers and gas eliminators and it is difficult to understand how the installations can be made without some form of by-pass in the line to permit the passage of oil in the event the meter is out of commission. The Texas order specifically states that no such by-passes shall be installed and this will necessitate some other form of relief system that will operate in the event the meter is not functioning properly.

Past experience with meters in various fields has indicated many conditions that must be met if metering of oil is to be accepted by pipe line company, producer and royalty owner. It is understood that there are many meters in operation in California that are giving satisfactory results, but it is further understood that so far as the manufacturers are concerned these installations have not as yet proven very profitable because of the need of frequent servicing and inspection required by the owners.

Co-operation Imperative

To develop suitable meters for oil it is very evident that there must be co-operation between prospective customers and manufacturers to the end that standards may be adopted that will meet the average conditions of installation. Up to this time it has largely been a case of adapting water meters or other meters not designed primarily for oil measurements to the petroleum industry requirements.

In pipe line work there are many established customs that are difficult to change and one of them requires that the oil in a tank be reported in feet and inches. The tank is strapped and these measurements are converted into barrels and fractions and if desired this practice can be carried to an accurate refinement. Meters usually record the passage of fluid by gallons or barrels. Most meters as originally used recorded in gallons and for use on oil lines have been converted to report fluid in barrels, and while this has been done in an accurate manner it still does not fulfill all of the requirements of the pipe line operator.

It has been suggested by one pipe line operator that the manufacturers of metering devices should first start from the practice being followed by the pipe line companies and design their apparatus to record flow of fluid in units common to present pipe line practice. To this end it is further suggested that some body of engineers should formulate rules for metering oil and it is understood that work along this line is being done by a committee appointed by the Petroleum Division of the A.S.M.E. and directed by Prof. William H. Carson of the University of Oklahoma.

General Application of Meters

It has long been the desire of many operators to use meters at various points along their systems because of advantages that could be gained by the adoption. To use meters for such purposes they will have to be accurate and reliable in operation, low in upkeep, require a minimum of inspection and repair and be suitable to handle oil as it is received from lease gathering tanks.

Under normal conditions oil that has been gauged by the pipe line gaugers for acceptance by their company has been settled, that is, it is free of included gas and free of sediment, but in actual practice it has been found that such oil may contain some gas and a small amount of sediment or sand.

To give ideal operating conditions for the meters it is generally required that the flow of fluid to the meter shall be as nearly uniform as possible and that this rate of flow be maintained constantly during the period of metering.

This condition has been difficult to find because the pumpers at the various leases must of necessity turn tanks on the line at varying intervals and in this way the rate of flow to any central station from a number of leases will build up in rate from zero to maximum and then gradually decrease back to zero flow. This places on the meter a varying rate of fluid flow through it and in many instances will also change the pressure rate at the meter.

Field Test Data

The Barnsdall Oil Co. has experimented with various types of meters for several years past at its refinery in Barnsdall, Okla., and in the field surrounding that town. These tests involved the gathering of oil from about 250 leases scattered over two counties and making a total of about 4,000 bbls. of oil per day.

One meter was set at a point where all oil would pass in entering the 55,000 and 80,000-bbl. storage tanks in the refinery yard. Lines from the various fields converged to this point and the oil was metered into the tanks as received from the leases. This metering was checked by tank gauging and it was found that with each type of meter tested the error was small, a shortage of only 16 bbls. being found out of 106,983 bbls. handled during one period, and an overage of 676 bbls. out of 1,031,045 bbls. handled in another test.

This degree of accuracy in measuring of oil is close enough for practical purposes, but in order that it might be obtained and maintained required considerable supervision. In time it is possible that this supervision might be reduced

Wall Map Showing Oil and Gas Pools With Names Available July 28

In response to the desire of oil companies and manufacturers and distributors of oil field equipment for a large map showing all oil and gas pools in the United States, The Oil and Gas Journal has compiled such a map and will publish it in connection with the Semiannual Number of July 28. Information for this map was furnished by the various branch editorial offices of The Oil and Gas Journal located throughout the United States and in Canada.

The oil and gas pools will be shown in red. The pools are numbered with the numbers listed by states showing names of the pools. As an example of the completeness of the map, more than 700 pools west of the Mississippi River are shown and listed by names. The map is printed on especially heavy bond paper so that it may be preserved and referred to for years.

Owing to the very large expense entailed in compiling information for this map, for the drafting work, the engravings, the high quality paper and the printing, only a limited number of copies will be printed in addition to those necessary to supply subscribers on the books to receive the July 28 issue of The Oil and Gas Journal. The extra copies will be used to supply requests for copies of the map, in the order in which these requests are received, a charge of $2 being made for each copy of the map.

There are just two ways of procuring a copy of this large oil and gas pool map. Each subscriber of The Oil and Gas Journal will receive a copy with his issue of July 28. The other way is to send in $2 for a copy, it being understood requests so received will be filled in the order received and that the money be refunded if the requests exceed the number of copies of the map available.

and the meter relied upon entirely to give a record of oil handled.

In this set-up the oil from the several lines passed through regular connections ahead of the meter but before entering the meter it all passed through a small strainer. While the oil was supposed to have been settled in the lease tanks it was found that there was some sand and sediment still suspended in it and this gave trouble in some types of meters.

This trouble could be almost entirely eliminated by the use of larger structures, but in that event the cost of the equipment would be materially increased.

Check Valve Needed

It was also found necessary to place in the gathering line ahead of the meter a check valve set against the normal flow of the fluid but so designed and placed as to become operative in the event free flow through the meter stopped. This by-pass consisted of a tee in the main line so placed that a short length of pipe extended vertically from it and at the upper end of this pipe the check valve was installed. From the check valve a length of horizontal pipe extended over and past the meter and at the end was fitted with an ell and another short vertical pipe leading down to the main line on the discharge side of the meter.

With this set-up it was found that under normal working conditions the meter would be in service during the daylight shift mostly, because the pumpers would start turning oil into the gathering lines from 7 a.m. until about noon and as these lease tanks delivered their oil to the gathering system the volume of flow through the meter would build up.

As the tanks were emptied the rate of delivery of oil to the meter would gradually decrease until by evening there would be little or no oil passing to the storage tanks. In some instances a lease might be pumped all night, but that was not ordinary practice.

Under these conditions the meter had to be selected for a maximum flow condition, but it operated quite satisfactorily under other rates of flow because all oil drained or was pumped to this central point.

Other conditions of metering were not so favorable because they were such as to permit the handling of only small quantities of oil and at varying intervals of time.

It was desired to get meter readings of oil produced from a number of 8 to 12-bbl. per day capacity leases. This oil was pumped from the wells into relatively small tanks and turned into the lines as these tanks were filled. This meant intermittent delivery of oil from the leases but the delivery of some oil each day.

Drained by Gravity

The location of the lease tanks was such that most of the oil would drain by gravity from the lease to the central pump station for the area. As an example of this condition on one lease there was a 300-bbl. tank used, and it was connected by a 2-inch gathering line to the pump station located at some distance from this tank. The 2-inch line would actually hold 280 bbls. of oil and there was only 20 bbls. of excess oil in this particular portion of the system.

When this tank was turned on the line the oil would flow by gravity toward the meter and fill the line, displacing the air that had accumulated in it since the last tank run. It would be necessary to allow this air to escape to the atmosphere and when the oil showed up at the meter to close the air valve. As long as the line was full the meter would register quite accurately, but by the time this 2-inch line was actually filled with oil there remained only 20 bbls. in the lease tank. So after 20 bbls. of oil had passed the meter the rate of flow through it varied because of the gradually decreasing head of fluid coming to it.

This varying head also created a varying pressure within the meter and as there is a certain amount of loss within the meter itself due to passage of oil through the openings and veins within the meter case, the recorded fluid showed as much as 10 per cent variation.

The purpose of the installation was to eliminate, if possible, the necessity of having gaugers go from lease to lease and gauge the tanks as they were run. If the meter has functioned in the desired manner the lease pumper could have filled the tanks and placed them on the line and the amount of oil from each lease could have been recorded as it passed into the main system, because each lease had its own gathering line direct to this central point and the pumper there could know from what lease he was receiving oil at any time.

Types of Meters Available

Another condition that might be desirable at various leases would be to meter the oil from the individual wells direct into the lease storage tanks. This has not been found practicable so far because the well produces in addition to oil a considerable amount of gas, water and sediment, all of which will register in the meter. So far as known there is no meter that is capable of separating the oil from these other elements and it is therefore impossible to meter oil at that point.

Under the orders that have been issued by the two state regulative bodies the meters will be required to handle oil only and while this simplifies the problems greatly there are still a number of conditions that will have to be considered if accuracy is to be obtained and these operations will be watched with much interest by the operators.

In order that real progress in the adoption of meters for handling oil may be made it is evident that uniform conditions must be set up by a competent group of men and it would now seem that it will first be necessary for the executives of the various companies interested in the problem to signify their willingness to accept metering of oil as an established custom and make settlements upon meter readings.

This can be done, but if left to the development of the manufacturers alone it will be a long drawn out procedure because the volume of business is not great enough at this time to permit any one manufacturer or any group of manufacturers to bear the expense of such investigations without assurance on the part of the prospective customers that the customers will adopt this system if proper apparatus is available.

New Umpire Plans to Check Mounting Production of Oil in California

By L. P. STOCKMAN

LOS ANGELES, Calif., July 18.—Resignation of Neal H. Anderson, California oil umpire for approximately two and one-half years, and the appointment of J. R. Pemberton to succeed him are the most recent developments of interest in the campaign for curtailment of California's overproduction of crude oil. Mr. Pemberton has announced plans for curbing the output of certain fields.

Mr. Anderson's retirement as administrative head of the proration program was followed by a joint meeting of the Executive Committee for Equitable Curtailment of the Oil Industry and the Central Proration Committee in the umpire's office, at which it was tentatively agreed that the executive committee would undertake the responsibility of carrying on the curtailment program. This position was modified subsequently, however, and Mr. Pemberton was made state oil umpire. The executive committee, in announcing the appointment of Mr. Pemberton, urged operators, especially in the critical fields, to continue in their efforts to restrict their output of oil in an effort to maintain the advantage gained through the price increase granted by the principal purchasing companies.

Mr. Anderson declared, upon submitting his resignation, that he did not feel that it was necessary for him to make a statement other than to urge all oil producers to keep their production down to the quotas fixed. He told operators in a letter that "co-operation of every oil producer in the voluntary curtailment program is essential to the health of the industry and I am sure that united efforts to curb overproduction will continue. The recent price increase is contingent upon the production of every field being held within the limits of the allotment and such certification by the umpire will continue to be the basis of price maintenance. It is therefore imperative that every producer recognize his individual responsibility to contribute his proportion of the state curtailment requirements."

Mr. Pemberton, formerly general manager of the Petroleum Securities Co., an E. L. Doheny concern, was appointed administrative head of the California proration program on July 13. He is a graduate of Stanford University, where he majored in geology. After resigning from the Petroleum Securities Co. several months ago, he departed with a group of naturalists for a cruise on his yacht along the west coast of Mexico and up through the Gulf of California. This scientific expedition was recently concluded.

Mr. Pemberton assumed his new duties immediately upon being appointed and announced that a drive would be started at once to curb mounting production in several fields of the state where, owing to factional difficulties, co-operative efforts have suffered.

K. R. Kingsbury, president of the Standard Oil Co. of California, advised the executive committee a few days ago that "unless the overproduction in several of the Los Angeles Basin fields is promptly corrected, the ability of our company to continue as purchaser at present prices will be in jeopardy." This communication has stimulated curtailment work and the executive committee is confident that operators will immediately cut back production in conformity with the curtailment program in order to maintain the existing price structure.

J. R. PEMBERTON

The resignation of Umpire Neal Anderson was accepted with regret and he was voted the thanks of the oil industry for his aggressive efforts to maintain order and promote stabilization within the industry. Umpire Anderson stated he believed the curtailment committee had chosen a strong and able man as his successor.

SHIP OWNERS PROTEST BUNKER FUEL ADVANCE

NEW YORK, July 15.—The recent advances in bunker fuels at Atlantic seaboard points is being met with protests from shipowners. The latter claim that they are entitled to a drawback on the price paid for the fuel oil of 21 cents, the amount of the import tax which became effective June 22. The oil companies point out that they have not imported any fuel oil since the tax became effective and for that reason the buyers are not entitled to the drawback. The recent advances made in fuels, it is explained, by the oil companies is due to the increased cost of crude oil.

The Roosevelt-International Mercantile Marine Co., operators of the United States Line and the Baltimore Mail Line, issued the following statement:

"I feel that the increase in bunker oil prices is without justification and has resulted in an unreasonable increase of operating expenses. The last advance of 10 cents a barrel increased the round trip expenses of the Leviathan by between $7,500 and $8,000. Such an increase is very serious in these hard times and constitutes another handicap on American shipping. In view of this condition it becomes very important that the steamship companies should concentrate their attention on the development of a combination of coal and oil fuel to keep their costs within reasonable bounds.

"Ocean freight rates are now at extremely low level and the volume of cargo is about 50 per cent below last year's figures. Passenger rates, too, are lower, so that revenues have been greatly reduced. The eastbound passenger movement shows a drop of 26 per cent in first class as of July 1, compared with last year when there was a decline of 24 per cent from the preceding year."

SECRETARIES TO SEEK REVENUE ACT CHANGES

COLUMBUS, Ohio, July 16.—At a meeting of the secretaries of the state jobber associations held here today, a committee was appointed to bring to the attention of officials at Washington, D. C., the inequitable situation arising from Article 9, Regulation 44, as promulgated by the Commissioner of Internal Revenue and referring specifically to the exemption of the Federal tax on gasoline and lubricating oils as sold to states and political subdivisions.

It was claimed at the meeting today that under these regulations the refiner, blender or compounder may quote and sell to the state or political subdivision thereof gasoline or lubricating oils tax free, whereas, the distributor, (jobber, retailer) having paid the tax to the refiner, blender or compounder, is automatically penalized in respect to his cost by the amount of the taxes, thereby placing him inequitably under the handicap of not being able to quote and sell to the state or political subdivision thereof either gasoline or lubricating oils, tax free, unless he is in a position to absorb, out of his own gross margin, the amount of the aforesaid taxes.

ROCHESTER, MINN., SYSTEM

A recommendation that the Minnesota Northern Natural Gas Co., subsidiary of Northern Natural Gas Co., be granted permission to construct a natural gas distribution system in Rochester, Minn., has been approved by the city council. The recommendation calls for a three-year contract, the city having the privilege of taking over the system at the end of that time. Northern Natural's pipe line subsidiary, Northern Gas & Pipe Line Co. of Omaha, Neb., completed extension from the Mason City-Owatonna Line of the company some time ago.

SWITZERLAND USED MORE OIL

Imports of petroleum into Switzerland during 1931 according to official government figures amounted to 2,543,907 bbls., compared with 2,227,844 bbls. imported during 1930. Gasoline imports aggregated 1,546,099 bbls. with imports of 1,350,544 bbls. during the previous year.

Theory and Practice of Vapor Rectification in Operation of Vapor Recovery Type Plants

By PAUL M. RAIGORODSKY and NORMAN K. RECTOR*

During the last three years a number of refiners have installed so-called "compression-direct fractionating plants" to recover gasoline from uncondensed refinery vapors, including cracking plant vapors, topping plant vapors, debutanizer top vapors, vapors from reforming units, storage tanks, etc.

These plants are operated at comparatively low pressures, but generally require two stages of compression. This fact has given rise to some opposition to their application in refineries, as compared to the installation of absorption plants, which, in most cases, may be operated economically with a single stage of compression. The flow diagrams A and B show the installation of such plants. For the purpose of brevity these plants are referred to as "vapor rectification" plants.

Process

The vapor rectification plant consists essentially of a compression plant and a recovery stabilizer system. The primary purpose of the compression portion of the plant is to boost the pressure of the gas being treated to the pressure of the recovery stabilizer. The separation of gasoline fractions from the vapor by the condensation that takes place in the intercooler is only incidental as in the gas coolers preceding an absorption plant.

In this type of plant, two stages of compression are generally used. The gas from the high stage is discharged, hot, directly to a fractionating tower.

The recovery-stabilizer system is similar to an ordinary natural gasoline stabilizer consisting of the usual column and reboiler, heat exchanger, gasoline cooler, reflux condenser and controls. As with an ordinary stabilizer the principal controls are pressure regulator, reboiler temperature controller, feed and reflux volume controllers. The principal difference between this system and the ordinary stabilizer is the provision for admission of vapor as well as liquid feed to the column and the relative size of the component parts.

Sufficient capacity is provided in some of these installations that unstable casinghead gasoline purchased by the refinery may be added to the liquid feed and stabilized during the recovery process. The resulting stabilized casinghead gasoline is recovered, mixed with the vapor recovery gasoline.

When the plant is operated only as a vapor recovery plant the liquid feed consists of the gasoline condensed in the intercoolers of the compression plant. This gasoline averages between 70 and 80 per cent of the final gasoline product in liquid volume, but all of this liquid feed does not show up in the finished gasoline since it is an unstable gasoline, and propane and lighter fractions must be eliminated. In some of these installations the liquid feed also consists of condensed debutanizer overhead product. This is likewise unstable gasoline, containing a comparatively large portion of propane and lighter hydrocarbons. The recovery column liquid feed is pumped from a surge tank in the usual manner, passing through a heat exchanger where heat is received from the finished gasoline leaving the system.

The total feed to the fractionating tower consists, then, of two streams, hot liquid from the exchanger, containing principally the desirable heavier hydrocarbons but also containing undesirable lighter fractions, and hot vapors from the compressor, containing principally the lighter gas hydrocarbons but also containing desirable hydrocarbons. These two streams are brought together and intimately mixed just before entering the column. The result of this mixture is the first step in recovery. The lighter hydrocarbons tend to leave the liquid and enter the gas mixture while the heavier gasoline hydrocarbons tend to leave the gas mixture and enter the liquid.

When the combined gas and vapor feed enters the column the portion in the liquid state starts downward through the stripping section of the column where the lighter fractions are removed from the gasoline as in an ordinary stabilizer. The portion of the feed entering the column in the vapor state rises immediately through the rectifying section. The desirable gasoline fractions are recovered from this rising vapor stream by the downward flow of reflux. The residue gas leaves the top the column with the evaporated reflux and passes to the reflux condenser system.

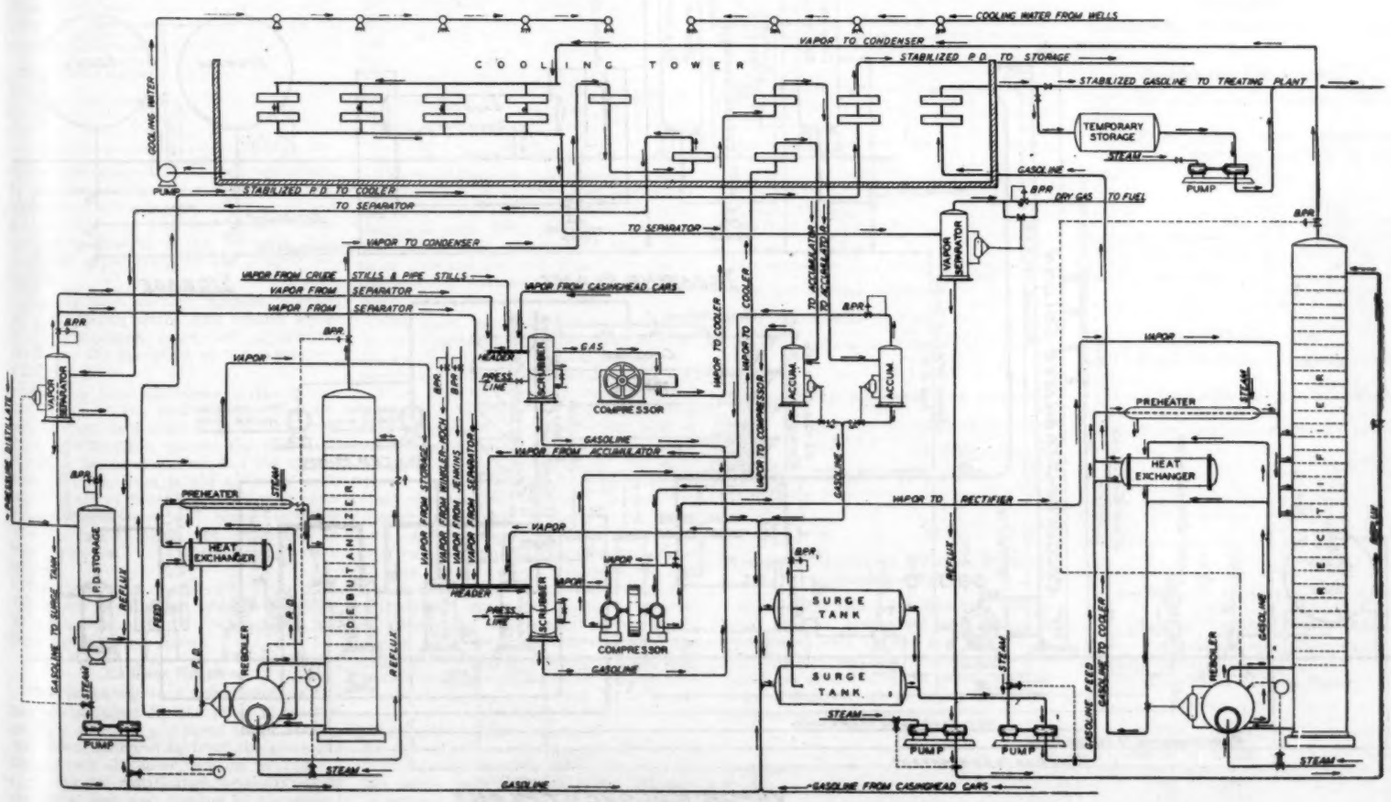
The condensed reflux and residue gas pass from the reflux condenser to a separator where the reflux is trapped and returned to the column by a reflux pump. This reflux pump is controlled by an orifice meter controller, a constant reflux rate being maintained. From the separator the residue gas passes through a back pressure regulator to the refinery fuel system. The recovered gasoline product is withdrawn from the reboiler and passes through the heat exchanger to the gasoline cooler and then to the storage tanks or treating plant.

Recovering Gasoline From Vapor Mixtures by Fractionation

The recovery of gasoline from vapors in a vapor rectification plant is effected by fractionation which, when applied to vapor recovery, is entirely different from absorption. As already mentioned, the stripping section of a recovery stabilizing column functions in exactly the same manner as in an ordinarly gasoline stabilizer. The pressure throughout the system is higher and this higher pressure is accompanied by higher temperatures near the bottom of the column, but in the section of the column above the feed point higher temperatures than in the ordinarv stabilizing column do not prevail due to the partial pressure effect of the greater proportion of methane and ethane present. The methane, and to some extent the ethane, do not enter into the fractionating problem in any great degree but cause an additional condenser heat load. It is due to the partial pressure effect of methane and ethane that the higher operating pressures are necessary. This operating pressure must be such that reflux may be condensed from the residue gas leaving the system when all the desirable fractions have been extracted from this gas. If this residue gas were to consist principally of propane, the operating pressure required would be substantially the same as the operating pressure required in an ordinary stabilizer but if this residue gas is one-half propane and one-half methane the operating pressure required would be practically twice as great.

When the conditions required to con-

*Petroleum Engineering, Inc. Associated with Arthur G. McKee & Co.



Flow Diagram A

dense reflux in a system of this type have been obtained by raising the condenser pressure and reflux is returned to the column in sufficient volume for the particular fractionating job, the descending reflux through the column will strip the desirable gasoline fractions from the rising vapors just as in any other fractionating tower and will do so as long as the reflux is in sufficient quantity and does not itself contain the desirable fractions but lighter ones. This stripping of the desirable fractions from the rising vapors is entirely different from the absorption process where the absorption medium is composed of hydrocarbons much lower in vapor pressure than the recovered fractions.

In the case of absorption, the absorption medium is a liquid of extremely low vapor pressure and the liquefaction of the heavier fractions in the gas is effected by these heavier fractions entering the liquid mixture and building up the vapor pressure of that liquid mixture to approach the pressure under which the absorption takes place.

In the separation of liquid fractions from a vapor mixture by fractionation the descending liquid stream has a vapor pressure higher than the fractions to be recovered, therefore, when the descending liquid and rising vapors are intimately mixed on the rectifier trays the conditions of equilibrium are not satisfied until the heavier fractions in the vapor replace the lighter fractions in the liquid and the lighter fractions in the liquid replace the heavier fractions in the vapor. This, of course, is the usual fractionation process and should not be confused with absorption.

The fundamental problem of recovering gasoline fractions from vapor by rectification is supplying reflux to the column where this recovery is to take place. This reflux must consist not of the hydrocarbons to be recovered or any heavier hydrocarbons, but of hydrocarbons lighter than those to be recovered. If the reflux contains some of the heavier gasoline fractions, these fractions will be partially lost in the evaporation of reflux in the top portion of the column.

From the standpoint of fractionation the problem of the rectifier unit is more simple than the problem involved in the separation of stable gasoline from the lighter fractions in the ordinary natural gasoline stabilizer unit. In both cases we are dealing with approximately the same bottom product, but, in the vapor rectification plant, the overhead product has a higher average vapor pressure and therefore is easier to separate from the stable gasoline. The fractionation cut required is not generally quite so sharp since, in the recovery column, a larger portion of the butane existing in the feed is taken overhead. All the butanes contained in vapors enter the column and no previous elimination of a portion of the butanes has occurred as in the case of an absorption plant stabilizer.

Reflux Condensation and Operating Pressure

Since the problem involved in this type of recovery plant is essentially the problem of obtaining reflux for the column, the possibilities under any given set of conditions depend entirely upon the composition of the waste gas. This makes the system particularly suitable for the recovery of gasoline from refinery vapors and other rich gases.

Assuming gas of a given composition and further assuming that a portion of the butanes and all propane and lighter fractions are to be taken overhead in the recovery column, the pressure at which condensation of reflux may be obtained at a given temperature depends on the amount of butane taken overhead in the system. The pressure at which the system may be operated when taking substantially all the butanes overhead will be found to be much lower than the pressure required for a substantially complete recovery of butanes. This fact is illustrated in an accompanying chart which shows the pressure at which the recovery system condenser must be operated when treating a gas of the following composition:

	Mol. %
Methane	30.2
Ethylene	3.0
Ethane	16.9
Propylene	5.3
Propane	14.2
Iso-Butane	1.4
Butylene	6.2
Normal butane	3.1
Iso-Pentane	3.1
Normal pentane	5.5
Hexanes and heavier	3.9
Total	100.0

This is an analysis of the gas entering the recovery plant, illustrated on flow sheet B, at the time the data were taken. The chart shows the operating pressures required in the condenser, when the condenser temperature is maintained at 75° F., from the butane-free gasoline to 100 per cent recovery of butane. This chart applies only to the recovery possibilities when treating gas of this given composition. Allowance is made for variation from the gas laws and engineering safety factors are included. The condenser pressure required for any given percentage butane recovery depends on the following factors:

Water temperature or temperature to which the condenser may be cooled.

Composition of the gas, i.e., ratio of excess butane and propane to the relatively noncondensable ethane and methane fractions.

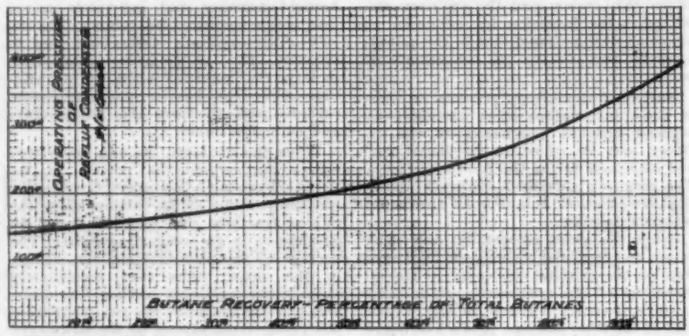
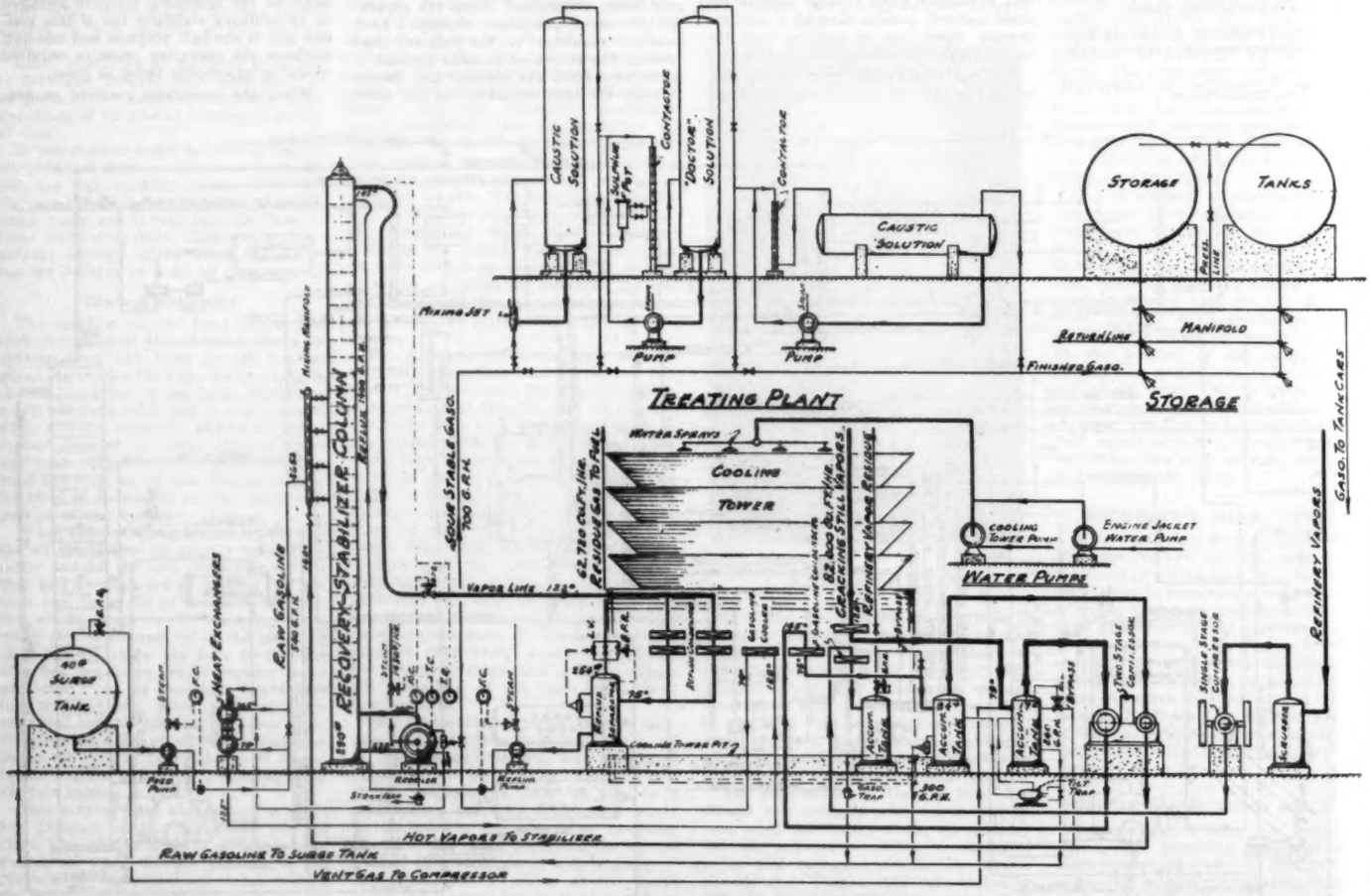


Chart showing operating pressures

Comparison of Systems

It is possible by designing for the required conditions, to obtain as high a percentage of the desirable fractions by the vapor rectification method as by any other method in commercial use today. It is a scientific fact that perfect fractionation is impossible, but it is also a fact that fractionation may be so near perfect that the best testing methods cannot detect the discrepancies. This applies to the separation of gasoline fractions from a vapor mixture just as well as to other fractionation problems and absorption.

From a thermal efficiency standpoint the vapor rectification type plant makes a much better showing than an absorption plant when treating rich vapors. This is due to the fact that no oil circulation or distillation of product is re-



VAPOR RECOVERY PLANT

Flow Diagram B

quired. The savings thus obtained may be enumerated as follows:

1. Heat required to raise oil temperature for distillation, lost in oil coolers.
2. Heat required to raise temperature of and evaporate raw gasoline in still, lost in condensers.
3. Heat required to raise temperature of and evaporate still reflux, lost in condensers.
4. Heat or other energy required for recycling, reabsorption, or recompression of still vapors for complete recovery.
5. Energy required for circulation of absorption oil.
6. Energy required for still reflux pumping.
7. Energy required for the circulation of cooling water for distillation unit condensers and oil coolers.

The above energy savings are only partially offset in the vapor rectification plant by the extra compression energy and rectifier reflux.

The vapor rectification plant does not even require heat for the evaporation of waste products since the liquid to column is less in actual volume than the product. The heat of compression from the second stage is not wasted but supplies useful heat to the fractionating column.

Factors Involved

In general the economic comparison of the two systems depends on the following factors:

1. Necessary operating pressure. Composition of gas. Butane recovery required.
2. Value of gas. Compressor fuel.
3. Cost of heating medium. Steam.
4. Possibility of utilizing waste heat. Hot oil from refinery.
5. Cost of cooling water. Stream or lake. Wells. Cooling tower. Quantity available.
6. Obtainable cooling water temperature.
7. Cost of absorption oil.

Theoretically the vapor rectification type plant is always more efficient than the compression, absorption and stabilization system. Other factors, governing the economics of the situation sometimes makes the absorption system advisable. It may be stated, however, that in any installation where excessive pressures are not required and fuel and cooling items may be considered in an economic balance, the vapor rectification is more desirable.

Factors such as high propane content of gas, causing extra and useless loads in an absorption plant, are a positive benefit to the operation of the vapor rectification plant.

There is little difference in the initial investment of the two systems. The difference that does exist is in favor of the vapor rectification system for plants of the type herein described, but the difference in initial cost is not so great as it would seem at first. The additional compressor horsepower and higher working pressure largely offset the advantages in first cost of the vapor rectification system.

Depreciation is considerably lower with the vapor rectification system, especially if noncorrosive fitted compressors are used for refinery vapors.

Utilities Required

The following is a tabulation of the utilities required for the plant illustrated on flow sheet B, compared to an absorption plant designed to treat the same gas and recover the same gasoline product:

1. Vapor rectification recovery plant by actual test and checked by theoretical computations.
2. Compression and absorption recovery system with stabilizer. One stage of compression, 17 to 84 pounds. Absorption at 84 pounds, 30 G.P.M. absorption oil (42° A.P.I.). Fractional distillation of absorbed product at 40 pounds. Reabsorber for uncondensed still vapors. Stabilizer for raw compression and absorption gasoline.

	Vapor rectification plant H.P.	Absorption plant H.P.
Compression—		
Compressor load	200	100
	B.t.u./hr.	Bt.u./hr.
Cooling tower load—		
Gas cooler (low press.)	374,500	374,500
Gas coolers (int. press.)	478,000	478,000
Oil coolers	.....	485,000
Gasoline condensers	.....	1,323,000
Rect. reflux condenser	1,078,000	780,000
Gasoline cooler (stab. gasoline)	102,000	102,000
Total	2,032,500	3,542,500
	G.P.M.	G.P.M.
Cooling water at 10° rise	406	710
Compressor cooling water	100	50
Total	506	760

For the purpose of comparison between utilities of compression vapor rectification recovery plant and absorption recovery system, all items of utilities are reduced to equivalent steam.

Gas engine driven compressors are used. Fuel consumption is assumed 10,000 B.t.u.'s per horsepower hour. Boiler efficiency is assumed 70 per cent (or less). Steam at 125 pounds is assumed to represent 1,012 B.t.u. per pound. i.e. 100 compressor horsepower = 100 × 10,000 = 1,000,000 B.t.u. fuel.

70% 1,000,000 = 700,000 B.t.u. heat in steam

700,000 ÷ 1,012 = 690 lbs./hr. steam

Cooling water is assumed to be pumped against a head of 60 feet. Turbine driven centrifugal water pumps are assumed with a pump efficiency of 65 per cent and a turbine water rate of 40 pounds per horsepower hour, i.e., 100 G.P.M. cooling water = 100 × 8.33 pounds × 60 feet ÷ 33,000 = 1.515 Hyd. horsepower. 1.515 ÷ .65 = 2.33 turbine horsepower × 40 = 93 pounds per hour steam.

TOTAL STEAM (OR EQUIVALENT, POUNDS PER HOUR

Steam—	Vapor rectification plant	Comp. abs. plant
Process pumps	250	475
Distillation unit	....	1,900
Rectifier unit	1,430	1,150
Compression—		
Equivalent steam	1,380	690
Cooling water—		
Equivalent steam	470	710
Total for comparison	3,530 lb/hr. @ 125 lb	4,925 lb/hr. @ 125 lb
	100%	140%
	71½%	100%

Flow Diagrams

The flow diagram A represents a complete stabilization and recovery system installed in one of the refineries in the Mid-Continent area. This plant consists of a debutanizer unit, compression plant, rectifier unit and treating plant. The treating plant is not illustrated on the flow sheet.

This plant was described in an article in the September 18, 1930, issue of The Oil and Gas Journal by F. A. Deering, superintendent of the Kanotex Refining Co.

Flow diagram B is of a recovery plant similar in principle to that shown on flow diagram A. No debutanizer unit is used in this plant. A sufficiently high temperature is maintained at the condenser in the cracking plant to limit the final condensation of vapors so that the propane and lighter content of the pressure distillate condensed is quite low. The vapors from the cracking unit come to this recovery plant relatively hot and are cooled before being admitted to any compression equipment. A small compressor is provided in this plant for the boosting of refinery crude still and tank vapors up to the pressure required for mixture with the cracking plant vapors. This small machine is provided with a gas cooler and so connected that the discharge may be either passed through gas coolers to the main recovery system or to the refinery fuel system. When operated by the latter method, the discharge pressure is carried somewhat higher and most of the available gasoline is recovered purely by compression. This alternate method of operation is provided so that, when these vapors are extremely corrosive, they may be kept out of the main recovery plant.

The flow diagram B shows the treating plant as well as the recovery system and also the various temperatures and pressures prevailing throughout the system at the time the quantity and quality data to follow were taken.

Theory and Practice

The following is a group of data on theoretical design computations applied to the conditions of flow diagram B and compared to the actual test data. Samples were taken of the rich gas, residue gas, reflux and gasoline product. At the time these data were taken the small compressor was not operating which somewhat simplifies the computations involved since the plant was treating vapors from only one source. The analyses shown are of "snap" samples and do not necessarily represent the average compositions throughout the period of time necessary to record other data, however, since there were no interruptions in the plant operation, these analyses may be considered fairly representative. The computations proceed from the following data:

Rich Gas

Quantity by orifice meter—1,965,000 feet per day.

Composition by fractional analysis. (This is the analysis already given, simplified for easier computations.)

	Mol. pct.	Cubic feet per hr.	Gals. per hr. gasoline fractions
Methane	20.2	24,750	...
Ethane and ethylene	19.9	16,320	...
Propane and propylene	21.5	17,630	...
Butanes	15.9	13,040	411
Pentanes and heavier	12.5	10,260	416
Total	100.0	82,000	827

The minimum pressure at which reflux of this composition may be condensed is the vapor pressure of the reflux:

	Reflux mol. %	Vapor pressure @ 75° F.	Partial pressure liquid fractions
Methane	2.34 ×	4,100 =	96.0 lb
Ethane	9.76	650	63.5
Propane	48.90	140	68.5
Butane	39.00	40.5	16.0
Total	100.00		244.0 lb absolute

The theoretical minimum pressure at which the condenser may operate and condense reflux for the system, when making the separation assumed, is the vapor pressure of the reflux, or 244 pounds absolute.

In practice a pressure in the condenser slightly higher than the theoretical is actually required. This may be accounted for by the variation in percentages of unsaturates in the gas, by deviation from the gas laws and by the fact that equilibrium is never quite complete in the condenser.

The condenser pressure at the time of the test was 254 pounds gauge (268.4 pounds absolute).

	Pounds
Actual pressure	—268.4
Theoretical pressure	—244.0
Deviation	— 24.4 = approx. 10% theoretical

This deviation was allowed in the curve showing butane recovery possibilities at different pressures.

As a check, the composition of the residue may be calculated from the analysis of the reflux since the residue gas is a vapor in equilibrium with the reflux and the molecular fractions of the components in the vapor are proportional to the partial pressures of the components in the liquid (reflux).

RESIDUE GAS COMPOSITION FROM REFLUX ANALYSIS

	Reflux mol. %	Vapor pressure @ 75° F.	theoretical	Residue gas mol. %
Methane	2.7 ÷ 100 ×	4,100 lb = 110.8 × 100 ÷ 271.7	=	40.8
Ethane	12.5	650	81.2	29.9
Propane	46.0	140	64.4	23.7
Butane	37.4	40.5	15.1	5.526
Pentanes plus	1.4	13	.2	0.074
Total	100.0		271.7	100.000

THEORETICAL PRODUCT COMPOSITION
(Based on the assumption of perfect fractionation)

	Gals. per hr.
Actual gasoline recovered during test	—700
Pentanes and heavier contained in rich gas	—416
Theoretical butane recovery	—284

	Gals. per hr.
Total butanes in rich gas	—411
Theoretical butanes recovered	—284

Theoretical butanes in residue gas .. 127 (=4,020 cu. ft./hr.)

Theoretical butanes recovery % = 284/411 = 69%

Theoretical gasoline composition:		
Butanes	284	40.5% by liq. vol.
Pentanes and heavier	416	59.5% by liq. vol.
Total	700	100.0

THEORETICAL RESIDUE GAS COMPOSITION
(Based on theoretical composition of recovered gasoline)

	Cu. ft./hr.	Mol. %
Methane	24,750	39.4
Ethane and ethylene	16,320	26.0
Propane and propylene	17,630	28.1
Butanes	4,020	6.5
Total	62,720	100.0

Theoretical Condenser Pressure Required to Condense Reflux

Theoretical reflux (condensate) composition. Reflux condensate is a liquid in equilibrium with residue gas.

Molecular fractions of components in liquid are proportional to molecular fractions of components in vapor divided by their respective vapor pressures.

	Residue vapor		Vapor pressure @ 75° F.	Ratio in liquid		Liquid mol. %
Methane	39.4	÷	4,100 lb = .0096	× 100 ÷ .4105	=	2.34
Ethane	26.0		650	.0400		9.76
Propane	28.1		140	.2004		48.90
Butane	6.5		40.5	.1605		39.00
Total	100.0 Mol. %			.4105		100.00

Summary

Comparison of theoretical and actual compositions.

Residue Gas Composition

(1) From theoretical recovery composition.
(2) From actual reflux composition.
(3) From fractional analysis of snap sample.

	Mol. % (1)	(2)	(3)
Methane	39.4	40.80	39.2
Ethane and ethylene	26.0	29.90	25.7
Propane and propylene	28.1	23.70	26.1
Butanes	6.5	5.53	8.8
Pentanes and heavier	trace	0.07	0.1
Total	100.0	100.0	100.0

Reflux Composition

(1) From theoretical recovery composition.
(2) Actual reflux by analysis of snap sample.
(3) From analysis of residue gas.

	Mol. % (1)	(2)	(3)
Methane	2.3	2.7	2.1
Ethane and ethylene	9.8	12.5	8.6
Propane and propylene	48.9	46.0	46.5
Butanes	39.0	37.4	47.2
Pentanes and heavier	trace	1.4	1.6
Total	100.0	100.0	100.0

Reflux quantity 1,400 gallons per hour.

Gasoline Product Composition

(1) Theoretical composition based on recovery quantity.

(Continued on Next Page)

(2) Analysis of snap sample from stream.

(3) Theoretical based on rich gas and residue gas analyses.

	Liquid vol. %		
	(1)	(2)	(3)
Butanes	40.5	33.0	36.3
Pentanes and heavier	59.5	67.0	63.7
Total	100.0	100.0	100.0
Equiv. gals. per hr.	700.0	620.0	656.0

Examining the comparison of theoretical and actual compositions through the plant, the similarity is quite obvious and the variation is no more than should be expected when "snap" samples are used even if the gas laws held perfectly.

Residue Compositions

Residue compositions Nos. 1 and 2 are probably nearer to the average under the operating conditions than the analysis of sample No. 3 since No. 3 could not be entirely correct unless considerable ethane and propane were left in the gasoline product and this product was less than 700 gallons per hour. This product was recovered at the rate of 700 gallons per hour for several hours during taking of data. The richest residue gas analysis (No. 3) indicates a recovery of pentanes and heavier of 99.4 per cent. This pentane and heavier recovery is higher than could be expected even with a very good absorption plant.

While the reflux contains traces of pentanes, a very small percentage of pentanes in the residue gas will cause a much larger proportion of these heavier fractions in the reflux. The reflux composition, therefore, makes a very good indicator of plant performance, with loss indications magnified. Anything less than 2 per cent pentanes and heavier in the reflux indicates a very high recovery efficiency for the heavier gasoline fractions.

It is assumed that the computed gasoline composition is more nearly correct than the analysis of a "snap" sample taken from the stream which may be in error due to several possible reasons, i.e., sample is indicative of composition at moment of taking sample only, possibility of control equipment having acted at approximately time of sampling, possibility of leakage in transport to laboratory or in removing sample from "bomb."

The above is further verified by the fact that 700 gallons per hour of analysis composition is not contained in the rich gas unless the rich gas analysis is in error, which is less likely, since other factors check rather closely.

If analysis were correct production would have been: Pents. plus: 416 Gal. — 2 (in residue gas) 414 gals. = 67 per cent total; 414 ÷ .67 = 620 gals.—possible production. But production was actually 700 gallons.

Operation

The vapor rectification process is the simplest and most easily operated efficient system of recovery in use today. Approximately half the control equipment used in an equivalent absorption and stabilizer plant is required. The many careful adjustments required for efficient operation of absorption plant and distillation unit are eliminated.

In both systems the attention required for operation of compression equipment is about equal unless no compression equipment is used with the absorption plant in which case the absorption plant is inefficient to the extreme. (This applies to refinery vapors available at comparatively low pressures.)

In the vapor rectification system the operation of the fractionating tower is not critical even if the butane recovery required is high. The first consideration is to set the system pressure sufficiently high that reflux may be condensed when recovering the desired gasoline. The reboiler is then adjusted to a temperature that will deliver a product of the desired vapor pressure. The operator must make certain that adequate reflux is pumped to the system and the rate kept constant. Under conditions of average constancy as to vapor rate and the usual butane recovery required losses of the heavier fractions are practically impossible if these conditions are met.

Gulf Coast Question "What Is Conroe?" Gets Many Answers and Stirs Up Argument

By NEIL WILLIAMS

HOUSTON, Tex., July 18.—One of the most interesting questions confronting operators in the Gulf Coast is "What is Conroe?" In view of present day information there are several possible answers and each view finds its supporters who use various arguments to substantiate their beliefs.

In and around the town of Conroe, central Montgomery County, there have been several plays with no success until last December, when the discovery well was completed by G. W. Strake, an independent wildcatter. For over two years prior to that time, Mr. Strake had worked persistently to have his block of some 8,000 acres developed. One company worked the block with torsion balance and then turned it back. Others would not even work it. Undaunted, Mr. Strake continued his efforts, and they were rewarded on his first test with a wet gasser making initially an estimated 15,000,000 feet of gas and approximately 75 bbls. of high gravity crude, or distillate, daily, with pressure of 1,500 pounds. This brought the serious attention of big companies and independents alike to focus on the area and the question "What is Conroe?" became more generally discussed.

The possibilities of Conroe as a producing area first stirred interest many years ago when a drilling contractor in making a water well for a railroad came upon an oil-bearing sand at around 1,100 feet. About the time the Humble Field came in in 1905, several holes were drilled by the Superior Oil Co. in search of production. Some holes went as deep as 2,000 feet—but no oil.

Two local men then turned their efforts to the location of production, and, although they drilled or caused to be drilled some half dozen wells, lack of experience and money worked against them. These pioneers, Messrs. Kelly and Baker drilled wells within the interesting western limits of the present area. Their most serious attempt, originally known as Kelly-Baker's No. 2 Jergous, in the Denward James Survey, about 3 miles west and south of Conroe, which with much labor had been carried to 2,000 feet, was picked up and deepened to approximately 3,200 feet by Roy Wilhite and others, then by Kelsey & Turner to approximately 4,700 feet, and then by the Wilson Oil Co. as No. 2 Leiberman. It was abandoned at 5,411 feet recently after drilling through the present producing zone of the field to a point well in the Yequa formation.

Try Again to Solve Conroe Mystery

The accepted marker, the top of the Hockleyensis (middle Jackson) was found relatively high in this well at a subsea level of 3,641 feet, which was helpful in inducing Hogg Brothers and Harry C. Hanszen and others to attempt a real solution of the Conroe mystery. After some geophysical work, they leased a block immediately west of the old Kelly-Baker well and took over a wildcat well in the Archibald Hodge Survey, and the Widee Oil Co.'s No. 1 Hunt Lumber Co. was drilled to a depth of 4,725 feet where it was abandoned as a low well. Here the marker was found at a subsea level of 4,145 feet, which is 500 feet lower than in the old Kelly-Baker well.

About this time John Deering of Houston and Benedum & Trees took a block about 3½ miles south of Conroe and drilled No. 1 Knight in the George Taylor Survey. This well was drilled because of a blowout and reported show in the Pierce-Fordyce Oil Co.'s No. 1, an old test, in the same survey. The logs checked well until just above the show, where there was a wide divergence. The test was abandoned at 4,685 feet in the Fayette, former upper Jackson, and just above the Hockleyensis.

At the same time in the southwest part of the county, Lowrie & Young did some surface work which resulted in the drilling of their No. 1 Sunday in the T. J. Nichols Survey. This test was abandoned at 4,755 feet. The top of the Hockleyensis was found at 3,579 feet subsea. From this test, they developed information which led to a series of core tests, and now they have just made location for a second deep hole, located on the Damuth land in the T. J. Nichols Survey.

Deep Wells That Yield Information

The accompanying table shows the deep wells drilled immediately around Conroe from which information has been taken in offering an idea of structural conditions at Conroe. The outlying wells have been used to determine the trend and dip and the local wells have supplied data from which the work has been done.

A contour map worked out by one geologist who explored the field is based on the top of the Hockleyensis as revealed in the tabulation of deep wells. According to this map, which does not pretend to give anything more than a probable picture of conditions as it lacks valuable control points in several directions, the general trend contours run approximately north 70° east from the southwest to northeast. As they break over the San Jacinto River the minus 3,900-foot contours and above break farther to the north and the 4,000-foot contours and below bear sharply southeast, caused by the intrusion of a "high" embracing the southern portion of the Sidney Sheppard, the John Dorsey, A. M. Folk, A. McGown, T. C. Howell and portions of the Theodore Slade, R. Kuykendohl, D. W. Collins, J. A. Davis, R. House and I.&G.N. Surveys.

As the 4,000-foot contour sweeps southeast it is broken due north by the sharp dip in the wells on the east flank and then goes back west to the western edge of the south half of the J. G. South Survey, where it sheers back abruptly, forming a deep syncline, and then assumes its normal trend.

According to this map, which, as explained, was made only to give a possibility, the producing area will be above the closure which may be found between 3,950 and 4,000 feet, giving a general domal high with the sand pitching off faster than the Hockleyensis as indicated in the dip in sand between Strake Oil Corp.'s No. 2 South Texas Development Co. and Heep Oil Corp.'s Nos. 1 Cartwright and 1 Freeman.

High May Continue Through Town

The high may continue through the town of Conroe, but the geologist who prepared the contour map believes the production will not extend north of the town.

The present production is coming from that transitory age between nonmarine and marine deposition placed by some paleontologists as being at the base of the Dibollensis (lower Jackson) and called by others Cockfield or Pettus pay and designated as upper Yequa. While the age of the formation is undisputed, there is considerable confusion as to whether it should be classed in the Cockfield and Yequa or in the basal Jackson.

The sand producing here also is found at Humble, a salt dome field, Pettus, in Southwest Texas, Raccoon Bend and several other places. Conroe is one of a number of productive spots, including Raccoon Bend and Pettus, which have been found along the "Jackson" trend or along the Reynosa-Lagarto contact, which has been traced for several hundred miles approximately paralleling the present shore line of the Gulf of Mexico. At Pettus the sands are very lenticular and spotty but the producing zone at Conroe appears to be more persistent.

Judging from present information, Conroe production should be both long lived and profitable.

MONTGOMERY COUNTY

Company—	No.	Farm	Elev.	Total depth	Subsea depth	Top of Hockley.	Subsea Hockley.	Completion—
Strake Oil Corp.	1	S. Texas Dev. Co.	199	4,991	4,796	4,050	3,850	Discovery well; completed wet gasser, 15,000,000 feet gas, 75 bbls. oil.
Strake Oil Corp.	2	S. Texas Dev. Co.	192	5,026	4,834	4,048	3,856	First oil well, 1,200 bbls. 38.4 gravity oil daily.
Heep Oil Corp.	1	Cartwright	224	5,078	4,854	4,110	3,886	Second well, wet gasser, 10,000,000 feet gas, 50 bbls. oil daily.
Heep Oil Corp.	1	Cartwright	224	5,186	4,957	4,110	3,886	Deepened gas well, set 42 feet of screen.
Heep Oil Corp.	1	Freeman	176	5,121	4,946	4,092	3,916	750 bbls. daily 37.9 gravity oil; deepest producer structurally.
Heep Oil Corp.	1	Roberts	206	5,385	5,179	4,150	3,944	Dry and abandoned.
Heep Oil Corp.	1	Brent	191	Drilling	....	4,115	3,924	
Heep Oil Corp.	1	Hamman	181	Drilling	....	4,118	3,937	
Alpha Oil Corp.	1	S. Texas Dev. Co.	189	Drilling	....	4,054	3,865	
Rowe & Flowers	1	Varner Realty Co.	181	Drilling	....	4,166	3,985	
Rowe & Flowers	1	Alexander	205	Drilling	....	4,078	3,873	
Craft & Gieseke	1	S. Texas Dev. Co.	160	Drilling	....	4,490	4,330	
Wilson Oil Co.	1	Lieberman	142	5,411	5,269	3,782	3,641	Dry and abandoned.
Peavyhouse Oil Co.	1	Sealy	148	Standing	....	3,716	3,568	Standing.
Widee Oil Co.	1	Hunt Lbr. Co.	179	4,725	4,546	4,324	4,145	Dry and abandoned.
Deering and Benedum-Trees	1	Knight	...	....	....	....	*4,550	Finished in Fayette.
Smith & Daniels	1	Sealy	272	....	....	3,940	3,668	Dry and abandoned.
Gholson Brothers-Rycade	1	Konkrite	209	Drilling	....	2,955	2,746	
Lowrie & Young	1	Sunday	207	4,755	4,548	3,786	3,579	Dry and abandoned.
Humble Oil & Refining Co.	1	Rena	...	....	....	....	4,321	Dry and abandoned.
LIBERTY COUNTY								
Ingraham and others	1	Palmer	165	....	....	4,655	4,490	Dry and abandoned.
SAN JACINTO COUNTY								
Seven Wells Corp.	1	Foster	199	....	....	3,988	3,789	Dry and abandoned.

*Estimated.

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Best Well Ever Completed in Runnels County Is Estimated Good for 300 Barrels Daily

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., July 18.—Runnels County, which has been producing 50 bbls. of 42 gravity oil per day from one well owned by the Magnolia Petroleum Co., and L. D. Ladd of Fort Worth, got another producer this week when the Blue Bonnett Petroleum Co. topped the Runnels County sand at 2,521 feet in its No. 1 McMillan in Section 22, N. Travis Survey, and the well made several 60-bbl. heads. The hole will be straight-reamed and a liner set before the well is drilled in, and is estimated good for a 300-bbl. well, the best ever drilled in this area.

The well is approximately one-half mile west of the discovery well, which was completed in October, 1927, then drilled deeper in November, 1930, to increase production. The Blue Bonnett lease was acquired from the Sun Oil Co. which retained an overriding royalty. The Magnolia Pipe Line Co. which has a small line connecting its producer to a four-car loading rack on the Santa Fe Railroad at Benoit will perhaps take the oil from the Blue Bonnett well which is now flowing into a 250-bbl. tank. Other tanks have been ordered for the lease.

Several tests were drilled in the vicinity of the discovery well on the McMillan farm, three of them proving productive, but two were plugged after going dead. The other tests, drilled to the east and south proved dry and were abandoned. The Blue Bonnett well was the first test drilled to the north, and may prove the opener of a fair sized pool for this area. Ladd and the Magnolia Petroleum Co. will no doubt drill a south offset at once, and others may start tests on their acreage near this new producer. The oil brings $1 per barrel, as per postings in the Central Texas district for crude of 40 degrees gravity and above.

New Howard-Glasscock Gauge

The Railroad Commission has ordered another gauge taken on the Howard-Glasscock County area to check the daily potential which was not acceptable to operators of the pool who met at Big Spring on July 11 and asked for a more accurate gauge. They alleged that basic sediment and water was included in the potentials, building up larger production during the three-hour tests which have heretofore been taken. The ordered test will extend over a 24-hour period. The last gauge, which caused the operators to call for more accurate gauge, showed the potential to have jumped from 75,897 bbls. to 104,045 bbls., almost an impossibility under existing circumstances. All wells in the area are on the pump, a large percentage of the lime wells making large volumes of sulphur water with the oil. This sulphur water was no doubt responsible for the gain in potential as reported by the deputy supervisor of the field.

The Tribal Oil Co. has been formed by a group of Big Spring men, namely: G. T. Hall, president; Otis Chalk, secretary, and Noel Lawson, secretary-treasurer, to operate the Marion Edwards ranch on the west of the Howard-Glasscock County area. Noel Lawson and others drilled in an extension well on the Edwards ranch proving more acreage to the west of the field, leading to the organization of this new company for further exploration. The extension well is in Section 11, Township 1s, Block 33, T.&P. Survey. A second test will probably be started at once.

Crane County Pool

The Crane County Pool has been curtailed another 800 bbls. daily by the Tidal Refining Co. withdrawing as a purchaser in the area, effective July 16. None of the other purchasers has agreed to take the 800 bbls., or any part of it. The Texas Pipe Line Co. and Humble Pipe Line Co. have been running the oil for the Tidal Refining Co. The Crane-Upton allowable has been 16,700 bbls. per day, and will now be cut to 15,900 bbls. per day out of necessity.

RANGER AND WICHITA FALLS

The U. Dalton producer completed last week in Section 1,790, T.&P. Survey, in the old Dalton Pool, Palo Pinto County, is now selling 130 bbls. of oil per day to the Superior Refining Co. at Ranger. Trucks are used to transport the oil, which is 41 gravity.

Nash and Windfohr are to drill their Atwell test in south Young County to 4,000 feet to test the 3,875-foot sand in this area. The operators first intended to drill to only 2,800 feet, but decided to carry it down in hopes of picking up saturation in the deeper formation. Osie Bratcher and King Royalty Co.'s No. 1 Lowe is a 115-bbl. well, making 5,500,000 feet of gas, offsetting the above test to the east. It was completed at 3,890 feet.

Rathke Oil Co.'s No. 1 Nitschke in south Wichita County has been abandoned at 2,650 feet after missing the Canyon Series. Dan H. Rubsam and others' No. 1 Wilson in Archer, was another Canyon Series test which was abandoned.

E. C. Stovall's No. 12 fee in South Young County is rather a phenomenal well in that it stopped flowing and is now flowing hot sulphur water and salt water which is reported to contain traditional health giving qualities. Three bath houses have been erected on the lease, and the owners will maintain a health resort.

George Pace and others' No. 1 Dennis in northwest Cooke County is showing for a small producer after logging an oil sand from 1,510-14 feet, and shutting down at 1,513 feet. It is classed as a semiwildcat well, and is estimated good for 15 bbls. on the pump.

Bridwell Oil Co.'s No. 1 Jackson, 1 mile northwest of production in the Chalk Hill area, Archer County, so far is disappointing having encountered only a small showing of dead oil from 3,678-85 feet at which depth Deep Oil Development Co.'s No. 1 Wilson, Lease 5-A, was completed for a 75-bbl. well on the pump from the Strawn sand.

Burns and Long completed plugging back on their No. 1-T Wilson, in the Chalk Hill area, Archer County, and successfully shut off the water, but tubing was later dropped necessitating a fishing job before the well can be tested. It is estimated good for 100 bbls. on pump. Gunsight lime was drilled from 1,382-84 feet, a slight showing of oil was logged at 1,392-1,411 feet, and the Canyon lime topped at 2,226 feet. Elevation is 964 feet.

PANHANDLE DISTRICT

An organization of landowners has been formed in the Panhandle, and an engineer retained to develop a definite program for unitizing the sweet gas producing area in Moore County, with the possibility that other areas in the district may also be unitized if this first plan is successful.

Landowners in the district have long been dissatisfied, and the proposed plan is expected to give them an outlet for a definite amount of gas now without a market. The gas marketing problem was recently made more complex when a Federal court held the common purchaser law unconstitutional.

There are many problems to be worked out in regard to unitizing the area, including consent of all leaseowners in the area to share expense of development, which is expected to be difficult, since many tracts are held by individuals lacking funds to pay their share of the expense.

If the plan is successful one possible market may be the Shamrock Oil & Gas Co. which may use the gas to supply the city of Fort Worth as proposed about a year ago, the Shamrock Pipe Line Co. to build a line from the Panhandle district to Fort Worth. The city of Fort Worth voted for such a proposition. The Lone Star Gas Co. now serves Fort Worth.

The F. C. Henderson, Inc., hearing for a permit to manufacture gasoline from natural gas in Hutchinson County, has been set by the Railroad Commission for July 25, at Austin.

The Federal court issued a permanent injunction restraining the Railroad Commission from enforcing the law against four major producers in the Panhandle, carrying out its written opinion invalidating the natural gas common purchaser act. Final papers in the suit were served on the Railroad Commission last Monday. This finding is part of the reason for the hearing being called, Henderson, Inc., being unable to obtain a market for its gas.

COMPLETIONS IN WEST TEXAS DISTRICT

Fisher County

Sinclair Prairie Oil Co.'s No. 2 Steele, top pay 3,232 feet, initial production 245 bbls., total depth 3,242 feet. Condor Petroleum Co.'s No. 1 Steele, top pay 2,932 feet, initial production 40 bbls. oil and 10 bbls. of water, total depth 2,934 feet.

Val Verde County

Independent Operators' No. 1 Whitehead, temporarily abandoned, total depth 5,360 feet.

Ward County

Gulf Production Co.'s No. 11 Hutchings, top pay 2,600 feet, initial production 180 bbls., total depth 2,782 feet. Lydecker and others' No. 1 Bennett, total depth 2,601 feet, plugged back to 2,589 feet, initial production 199 bbls., top pay 2,316 feet.

COMPLETIONS IN WICHITA FALLS DISTRICT

Archer County

C. B. Bailey's No. 2 W. R. Brown, oil sand 1,284-87½ feet, initial production 75 bbls., total depth 1,287½ feet. Bridwell Oil Co.'s No. 1 Bridwell, dry and abandoned, total depth 3,690 feet. Fain and McGaha's No. 4 Fain and McGaha, oil sand 1,780½-89½ feet, initial production 75 bbls., total depth 1,789½ feet. Hellorms and others' No. 1 Cullum, dry and abandoned, total depth 781 feet. Dan H. Rubsam's No. 1 Wilson, dry and abandoned, total depth 2,557 feet. Shap-

(Continued on Page 41)

Wildcat Operations in West Texas

Week Ending July 18

BORDEN COUNTY

Company, well, farm name, section and block—	Remarks—
Westyde Investment Co.'s No. 1 Looney, 990 ft. from S and E, Sec. 15, Blk. 31, Twp. 4n, T.&P. Sur.	T.D. 270 ft.; running 12½-in. csg.

BREWSTER COUNTY

Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE Sec. 100, Blk. 3, G.C.&S.F. Sur.	S.D. 1,302 ft.
Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 352, W. J. Mitchell Sur.	Rigging up cable tools.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 930 ft. from N and 2,500 ft. from E of Sec. 18, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.

CONCHO COUNTY

Beesley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 183, T.&N.O. Sur.	S.D. 1,700 ft.

CROCKETT COUNTY

California Co.'s No. 1 O'Byrne, 3,310 ft. from S and 1,650 ft. from E, Sec. 23, Blk. 33, Twp. 2s, T.&P. Sur.	Rigging up.
Doleman & Moore's No. 1 Ferner, 2,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, I.&G.N. Sur.	Spudded and S D.

(Continued on Page 41)

Wildcat Operations in Texas Panhandle

Week Ending July 18

CARSON COUNTY

Company, well, farm name, section and block—	Remarks:
H. A. M. Oil Co.'s No. 2 Cooper, 330 ft. from S and E, Sec. 5, Blk. 9, I.&G.N. Sur.	Location.
Osborne's No. 1 Byrum, 330 ft. from N and E, N½ NW, Sec. 183, Blk. 3, I.&G.N. Sur.	Cellar.
Pulse-Shell Pet. Corp.'s No. 1 Byrum, 330 ft. from N and W, W¼ NE, Sec. 183, Blk. 3, I.&G.N. Sur.	T.D. 3,214 ft; flowing 30 bbls. day.
Skelly Oil Co.'s No. 11 East Schaffer, 440 ft. from N, 2,640 ft. from E, Sec. 189, Blk. 3, I.&G.N. Sur.	Drlg. 2,225 ft.
Skelly Oil Co.'s No. 13 West Schaffer, Blk. 4, Sec. 87, I.&G.N. Sur.	T.D. 3,100 ft; T.P. 3,060 ft; 1,500 ft. oil in hole.
Texoma Nat. Gas Co.'s No. 1-T, 2,640 ft from N line, 783 ft. from W line, Sec. 21, Blk. 7, I.&G.N. Sur.	Rigging up cable tools.
Texoma Nat. Gas Co.'s No. 1-G Dover, 2,420 ft. from N, 2,645 ft. from W, Sec. 74, Blk. 4, I.&G.N. Sur.	Drlg. 2,165 ft.

COLLINGSWORTH COUNTY

Dixon et al's No. 1 Bell, 330 ft. N, 1,320 ft. W, Sec. 102, Blk. 21, H.&G.N. Sur.	Fishing 2,508 ft.
Downey et al's No. 1 Beasley, SE cor. SW SE, Sec. 95, Blk. 15, H.&G.N. Sur.	Rigged up.
Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur.	Spud.

(Continued on Page 47)

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Why Not Go the Limit?

Thurman Hill's suggestion that if crude production could be cut to 2,000,000 barrels daily it would mean a 25-cent a barrel increase is safe enough.

The Kansas representative on the Oil States Advisory Committee did not need any promises from the major companies to that effect, and it is denied that any promises were made, but if production were cut to 2,000,000 barrels daily and kept there the change from a supply greater than demand to a supply equaling demand and no more would automatically force an increase in price.

And the oil industry and everybody connected with it would be better off because it would get more money for less oil.

Nor would there be any profiteering or squeezing of the public in the process. Consumers have been getting their gasoline at distress prices that threw the oil companies into the red. The proposed increase in the price of crude is needed to give the producer a fair return on his investment.

No conceivable increase in the price of crude could ever have added as much to the cost of gasoline to the consumer as state taxes have added. In fact, the producer and refiner together are not getting as much for finding and producing and refining the oil as the tax collector is taking from the motorist.

Gasoline has always been the cheapest of all commodities. It did not share in the advance in general prices during the era of prosperity but it did plunge to the bottom with all others in the period of depression.

So the oil producer feels perfectly free in asking an adjustment that will give him only a fair deal.

He can get it by holding down production to demand. So long as he overproduces he breaks his own market.

Proration has been the only thing that saved him from utter disaster by restraining overproduction. That is now generally recognized but it will not be effected sufficiently until production is brought down to an exact level with demand.

Thurman Hill's calculation is that this limit for domestic production is about 2,000,000 barrels daily.

This would call for a reduction in domestic production of about 150,000 barrels, of which 60,000 barrels would be in Texas, 20,000 barrels in California, and a cut of 10 per cent of the present production in Oklahoma and Kansas.

Those who oppose reduction in production, fearing loss, should, on the contrary, look at the gain from the resulting betterment in price.

If curtailment has lifted the price from 15 cents a year ago to a dollar a barrel why not make the small additional curtailment needed to gain the extra 25 cents that will give the producer a fair profit?

In short, if proration is a good thing why not cut production to the figure that will insure a decent price? Why not go the limit?

If the producer will do that he will remove from the market the cheap oil that invites the refiner to overproduce in turn, breaking the gasoline market and carrying down the crude market with it.

With overproduction of crude eliminated the refiner would then face the direct responsibility of overproduction of gasoline by excessive withdrawals of crude from storage. He would be forced to limit his withdrawals by the peril of breaking his own gasoline market.

Gasoline stocks are excessive and must be reduced to proper working stocks to stabilize the industry. Just as the producer must set a limit for his production in line with demand so must the refiner limit his runs and withdrawals of crude so gasoline stocks may be reduced to a normal level.

Curtailment is not an obligation upon one division of the industry more than upon the other. Overproduction in either can undo all that curtailment has effected in the other.

Ratable decreases in drafts on stocks must go hand in hand with the curtailment in production if the industry is to get on a sound basis, permitting a better price.

There has been a division of opinion within the industry as to whether the April advance in crude was justified by conditions at the time. The situation has been complicated by the rush to anticipate the new Federal taxes and the consequent slump thereafter, as well as by the decline in consumption.

We are now in the main consuming months. Any faltering at this stage will mean another disastrous season. It is difficult to imagine anyone in the business, looking the situation squarely in the face, thinking he can help himself by weakening the market at this time.

These are the days when underselling brings quick results, quite other than the price cutter expects. It is exactly like kicking out the props and bringing the house about your head.

The producer can do it by overproducing, the refiner by excessive drafts on stocks and excessive runs, the distributor by shading prices.

The alternative is very simple. If the producer will curtail his production to about 2,000,000 barrels daily, if the refiner will limit his drafts on stocks and his runs to stills so that there will be no distress gasoline to break the market or to give price cutters the chance to shade prices, the industry, despite the decrease in consumption, can have a fairly prosperous season.

Neglect to heed the plain warning, on the other hand, will bring a cut rather than an advance in crude and consequent demoralization of the gasoline market.

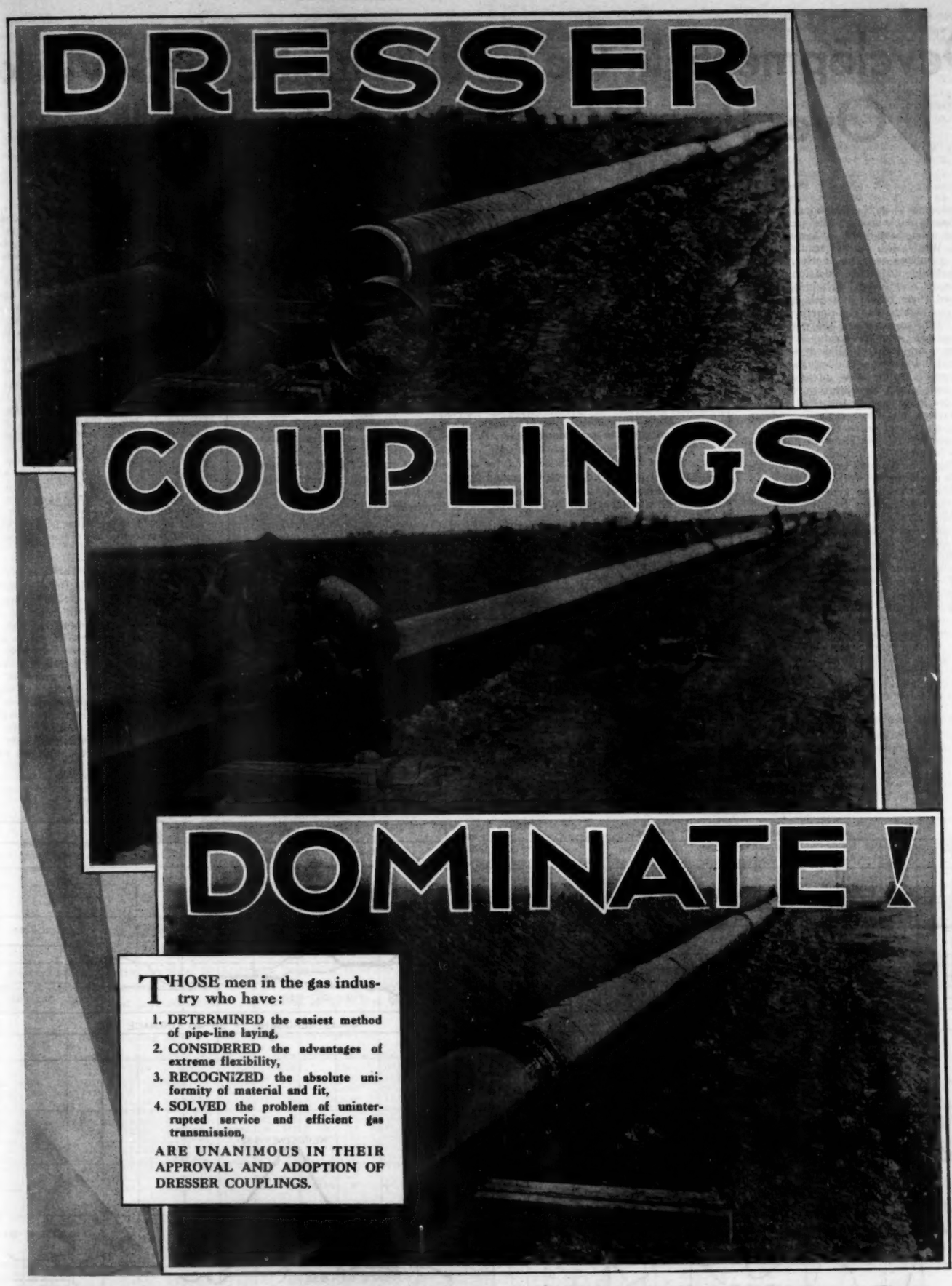
It is a sadly familiar situation experienced often enough to have carried its obvious lesson home to everyone in the oil business but it seems it has to be learned all over again each year.

This year the two courses are being put before the industry in sharper contrast than ever before. The advantages of curtailment have been checked and double checked. They have been established even on incomplete trial. Why not carry the practice to its logical conclusion, set a definite safe figure for production, withdrawals and stocks and reap real results?

It is understood a revision of the estimates of the Committee on Economics will be presented at the Colorado Springs meeting of the board of directors of the American Petroleum Institute. This should furnish a working chart for the industry to follow in the next few months along the lines suggested.

It would then be directly up to the producers and refiners to see that their operations are kept in line with that estimate and the stabilization of the industry on a better basis will naturally follow.

No promises are needed for that. The industry can, within reason, write its own ticket if it curbs its overproduction.



THOSE men in the gas industry who have:

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Developments In the Oklahoma Refined Market Over Past Week Favorable to Sellers

By C. O. WILLSON

Developments in the Oklahoma (Group 3) refined markets over the past week for the most part were in favor of the sellers. While open market trading in refinery gasolines was not active, buyers were not able to secure additional price concessions and several low price sellers advanced their resale and jobber quotations one-eighth to one-fourth cent a gallon. This strengthened the position of other refiners who have refused to meet the low quotations established earlier in the month. Prices on the regular grades of natural gasoline also advanced one-eighth cent aided by a large purchase in Texas for movement to the Gulf Coast.

Quotations on other refined products for the most part were unchanged. The Oklahoma market continues to have numerous inquiries for furnace oil material extending from the high gravity residuum fuel oils to the prime white distillates. So far there has been no general tendency on the part of refiners to advance their quotations although it is known that buyers are greatly concerned due to the limited quantity of material offered them either for prompt shipments or delivery over the consuming season. This situation because of its indirect effect on gasoline and other refined products, is one of the most bullish factors in the refinery market. Should refiners continue a program of reduced operations through the remainder of the year, price improvement in the better grades of fuels is assured and this in turn will aid in strengthening the gasoline market during a period of seasonal decline in demand.

Changes in Demand

As the industry moves farther into the season of maximum gasoline consumption it becomes more and more apparent that the trend in consumer demand is toward the third grade. This is becoming increasingly important in refinery tank cars for it is tending to make the demand for the low octane grades more active with a corresponding decline in the higher octane material.

The situation is in contrast to that prevailing a year ago. At that time, marketing departments were stressing the medium and high octane grades and many operators found themselves with a surplus of the low octane gasoline which was difficult to sell at any price. Representative opinions among refiners and marketers indicate that the change in the attitude of consumers is largely a reflection of depressed business conditions. Car owners are finding it expedient to economize and they are buying the cheapest motor fuel available from reliable distributors. As expressed by one station manager most car owners "have other worries more important than a knock in the motor of their car" and they do not hesitate to take advantage of the saving of 2 or more cents per gallon in the cost of motor fuels.

Motorists are less concerned about the quality of their motor fuels in summer than in winter when specifications other than motor knock are important but the shift in the demand over the past few months is more than seasonal change. Several companies have had the percentage demand for the third grade increase 50 per cent since the first of the year. Distributors, who last year were able to keep sales of this grade down to 5 to 15 per cent of their total, have seen them climb to 20 to 35 per cent with many cases in which the sales of the cheapest grades represents more than 50 per cent of the total.

Situation Varies

This condition varies with individual companies and sections. Some companies, although they offer a third grade, stress their regular and premium grades in their sales efforts and their sales of the cheapest grades are of course relatively low. Other companies have found it necessary to reverse this policy in order to meet competitive conditions established usually by cut-rate jobbers and they have featured the third grade in their advertising and all special sales programs. In this connection many companies have improved the quality of their grades to the

Refined Market Barometer

Prices on refinery products generally were steady throughout the United States over the past week, no important price changes being reported. The industry is in the midst of the peak gasoline consuming period of the year and this fact was reflected in heavy shipments from refineries. Some refiners do not expect to operate their plants through the entire month and are now running near capacity in expectation of a shutdown the last few days of the month. The kerosene market was reported quiet in all areas. The demand for fuels of all kinds is encouraging to sellers and prices are steady. Natural gasoline stronger in the Mid-Continent. Fair to strong demand reported for bright stocks and other lubricants. Wax slow.

Mid-Continent—Refinery gasoline prices steady with improved demand. Natural gasoline quotations higher. Better demand for kerosene and furnace oil. Fuels unchanged.

East Coast—Steady demand for all grades of motor fuels in domestic market. Kerosene dull. Better demand for bright stocks. Few export inquiries.

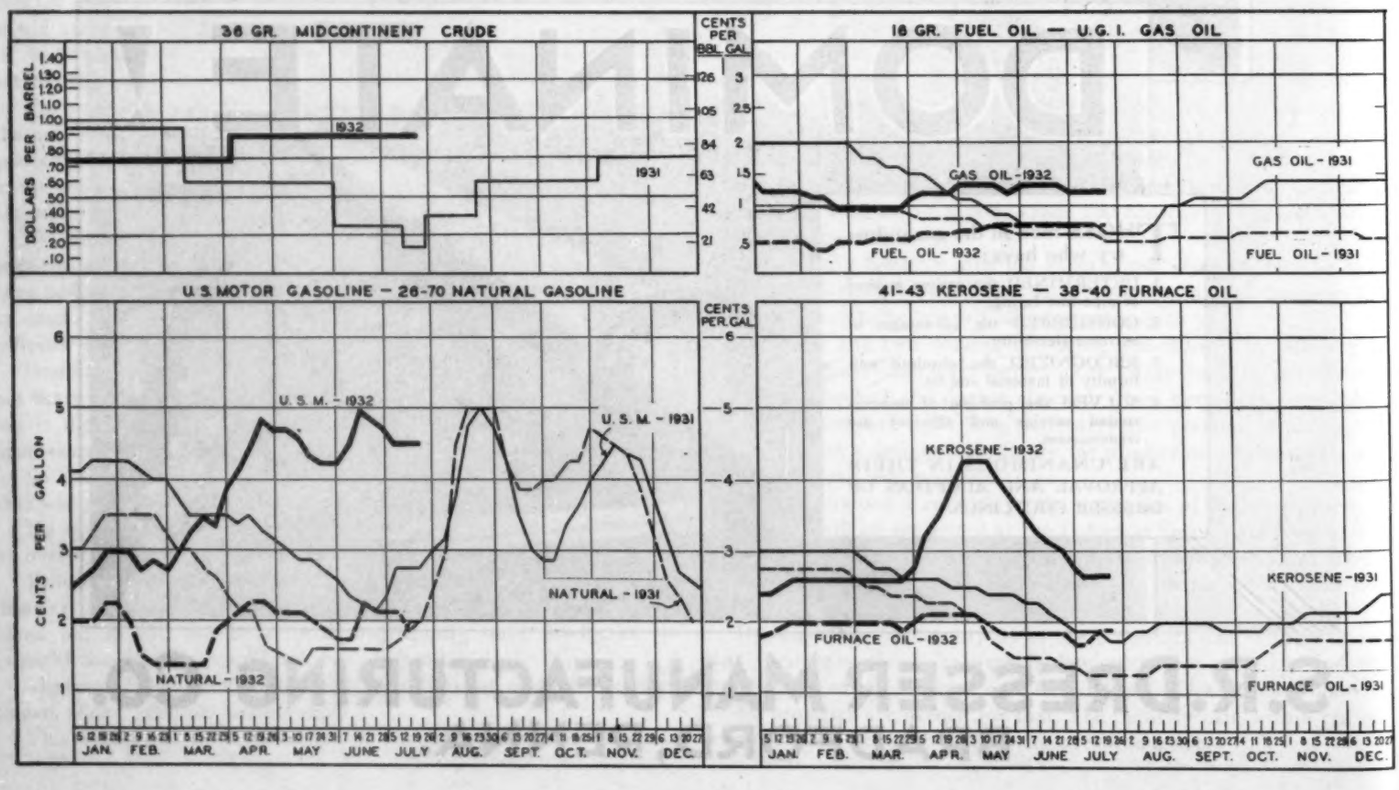
Pennsylvania—Prices higher on some grades of gasoline. Stocks and neutral oils unchanged. Wax prices lower. Kerosene slow.

Chicago—Low vapor pressure natural gasoline tend to hold down refinery gasoline quotations. Fuel oil and furnace oil situation improves.

California—Good demand for gasoline. Other products unchanged.

Gulf Coast—Routine shipments of all products in domestic market with no changes in prices. Few export inquiries.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



point where they are satisfactory motor fuels for a great majority of cars.

The original purpose of the third grade as introduced by major distributors was to furnish a product which would be competitive in price and quality with that sold by cut-rate operators. At the start many sold a straightrun gasoline with an octane rating of 50 or less with a relatively high distillation range. This policy has been changed so that many of these third grades have an octane rating of 60 or better with a distillation range well within the U. S. Motor fuel requirements. It is obvious that this development has tended to complicate the retail marketing situation, bringing what amounts to "price wars" in which it is impossible to correlate motor fuel quality and prices.

Widen Differentials

When the third grade was first introduced, the price usually was 2 cents under the quotations of the regular grade. But at points where retail markets are unsettled this spread has increased to as high as 5 cents a gallon. The shift to the third grade on the part of consumers has been very marked where the price differential is more than 2 cents. Ethyl Gasoline and other premium grades have usually suffered even more than the regular grade of gasoline in this increasing popularity of the third grade. In a few cases at least, the increase in third-grade volume has been almost entirely at the expense of the premium grade, the companies being able to maintain their regular grade sales with only minor fluctuations from month to month.

Market observers are not in agreement as to whether this trend toward greater demand for the lowest priced motor fuels will continue. It is pointed out that the great majority of the third-grade gasolines are not satisfactory for the new high compression cars sold by manufacturers. Unfortunately for those who have been emphasizing the antiknock properties of their gasolines, the demand for new cars has fallen off much more than was anticipated at the start of the year. Preliminary figures show a total motor vehicle output of 912,353 units the first six months of this year, a decrease of 44 per cent when compared with the same period last year. In 1931 production was less than 50 per cent of the peak in 1929, which means that output so far this year is about 25 per cent of the top figure in motor vehicle output.

With these data in mind many believe that with improvement in general business conditions, car production will increase and this development in turn will again emphasize the necessity of having motor fuels high in antiknock rating. However, based on changes of the past few months it is possible that some distributors will improve their lowest priced grade to the point where it will be satisfactory motor fuel for the higher compression engines. In other words, the problem of grading gasoline has other angles than the immediate requirements of motors and in the final analysis may be determined by the ability of certain companies to improve their processing facilities to the point where they will manufacture only one or two grades which will meet the requirements of all type motors.

The significance of these developments in retail markets in relation to tank car markets is receiving more and more consideration from refiners. It is apparent that unless the trend toward the third grade is checked, it will become the dominant grade instead of the regular grade as a basis not only for open market sales but also long-time contracts with jobbers and all types of retail distributors. This, in effect, will mean a narrowing of margins on which to carry on bulk and retail station operations, a development not welcomed by those who built up expensive retail distribution systems during the period previous to 1931 when consumers were less price conscious than they are at present.

Revenue Department Issues Regulations Covering Lubricants and Greases

By C. E. KERN

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., July 16.—Instructions were today given Collectors of Internal Revenue and others concerned, in respect to the tax on lubricating oils. Article 11 of Regulations 44 has been amended to read as follows:

Article 11. Scope of Tax.—The tax imposed under Section 601 (c) (1) attaches to the sale by the manufacturer of lubricating oils. Lubricating oils imported into the United States are subject to a tax of 4 cents a gallon upon importation under Section 601 (c) (4), but the importer's sale thereof is not taxed under Section 601 (c) (1).

"Lubricating oils" are all oils sold as such and all oils sold or used for lubrication. A particular oil having both lubricating and nonlubricating uses is taxable unless (1) it is put into a channel of consumption or distribution for a use other than that of lubrication, under a name identifying it for such use, and (2) the manufacturer obtains from the purchaser a certificate to the effect that the oil will be used by the purchaser for a stated purpose other than that of lubrication or resold by him only to a person who in turn furnishes a similar certificate. A blanket certificate covering all orders between given dates (for a period not exceeding a month) may be accepted from the purchaser. Such certificates and proper records of invoices, orders, etc., relative to tax-free sales must be retained as provided in Article 50. Where upon inspection it is discovered that a manufacturer's records with respect to any sale claimed to be tax free do not contain a proper certificate, with supporting invoice and such other evidence as may be necessary to establish the character of the sale, tax shall be payable by the manufacturer on such sale.

"Examples of oils not subject to tax when sold (otherwise than as lubricating oil) for purposes other than lubrication, as prescribed in the preceding paragraph, are: Road oil, cordage oil, agricultural spray oil, cotton softener oil, ink oil, medicinal white oil, and oil used as a

(Continued on Page 31)

Gasoline and Naphtha

To the trade, Oklahoma U. S. Motor gasoline of low octane rating was quoted the first of the week at a price range of 4½ to 5 cents, which is the same as the previous week. The improvement in the gasoline situation is based on the fact that less resale material is being forced on the market and if this situation continues it will be the basis of advances in sales to the trade before the end of the week.

The 57-65 octane, U. S. Motor gasoline was generally quoted at premiums of either three-eighths or one-half cent over the low octane grade. The 65 and above octane grade was quoted at five-eighths or three-fourths cent premium. These premium quotations for the higher octane grades were largely nominal so far as spot sales were concerned. A few open market sellers are offering the medium grade at one-fourth cent over the low octane and 65 and above, one-half cent. These sellers say that it is impossible to obtain greater premiums and they cite instances in which refiners are guaranteeing a 58 to 60 octane material and selling it at a low octane price. This reflects the situation previously explained in which some refiners have surplus gasoline belonging to the middle and high octane grades.

Some refiners also blame the sale of low vapor pressure natural gasolines for the weakness in the higher octane grades of refinery gasoline. By using these low vapor pressure grades direct as motor fuels or by blending them with refinery grades, jobbers and other distributors, including some of the major operators, have been able to secure a motor fuel of relatively high octane rating at delivered prices which are less than the prices asked by refiners for their low octane gasoline grades.

It is certain that these natural motor fuels and blends have taken the "play" away from the high gravity refinery grades. The demand for 390 to 350 endpoint grades continues slow with occasional spot sales at prices which reflect the fact that there is very little spot demand. Nominal prices range up to 5 cents for the 350 and 360 endpoint grades in cases where no octane rating is involved.

Natural Gasoline

Sizable purchases of natural gasoline from inland Texas plants improved that market the latter part of last week and the entire Mid-Continent market benefited. The 26-70 grade was being sold the first of the week in Oklahoma at a price range of 2 to 2⅛ cents with North Texas quotations one-eighth cent lower. Prices on the low vapor pressure grades were for the most part unchanged. Trading was most active in the 15 and 18-pound grades.

Other Products

The situation in regard to furnace oils has already been explained. There are buyers in the market who are willing to purchase the 32-36, low flash grade at 1⅝ cents but sellers generally are asking a low of 1¾ cents and not anxious to sell at that figure. In the higher gravity grades 1⅞ cents is low for 38-40, light straw and 2¼ cents for prime white. Heavy fuels are unchanged.

The ruling of the Federal Revenue Department in the matter of taxes on lubricants, greases, etc., will aid in clarifying the Mid-Continent market situation. Several refiners report a very satisfactory movement of all lubricants. Wax prices are unchanged.

American Petroleum Institute Weekly Refinery Statistics

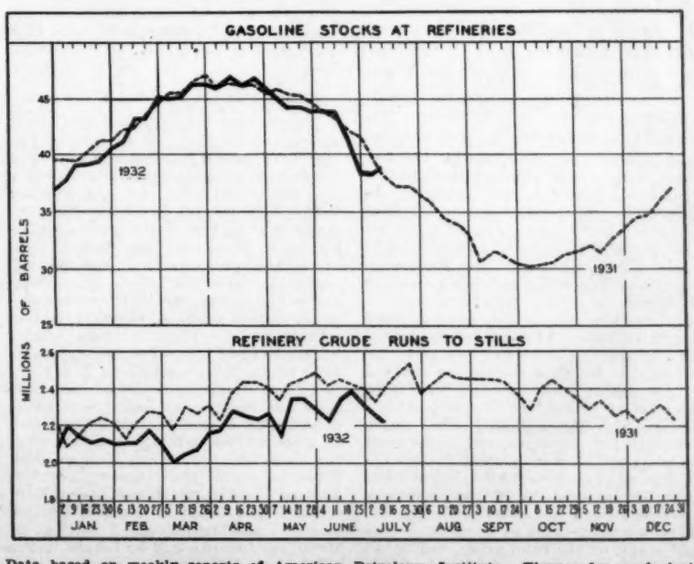
Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Gasoline stocks. (4) Gas oil and fuel oil stocks All figures in 42-gallon barrels.

Week Ending July 16, 1932, Compared to Week Ago

	Week ending July 16				Week ending July 9			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	453,700	6,268,000	7,702,000	100.0	444,000	6,367,000	7,311,000
Appalachian	91.8	102,200	1,489,000	1,188,000	91.8	76,300	1,487,000	1,112,000
Ind., Ill., Ky.	98.9	314,300	5,558,000	4,433,000	98.9	295,600	5,482,000	4,268,000
Okla., Kans., Mo.	89.6	230,700	3,354,000	3,454,000	89.6	225,900	3,284,000	3,372,000
Tex. Gulf	99.3	433,300	5,216,000	8,158,000	99.3	423,100	5,078,000	7,469,000
La. Gulf	100.0	93,100	1,477,000	4,593,000	100.0	107,600	1,471,000	4,536,000
Inland Texas	76.5	96,000	1,228,000	2,369,000	76.5	107,700	1,286,000	2,519,000
N. La. and Ark.	97.0	41,300	125,000	747,000	97.0	44,100	130,000	746,000
Rocky Mtn.	89.4	42,300	1,848,000	649,000	89.4	37,700	1,820,000	686,000
California	96.7	480,100	12,950,000	99,342,000	96.7	456,700	12,693,000	99,104,000
Total U. S.	95.1	2,288,000	39,513,000	132,635,000	95.1	2,218,700	39,098,000	131,093,000

Week Ending July 16, 1932, Compared to Year Ago

	Week ending July 16				Week ending July 11, 1931			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	453,700	6,268,000	7,702,000	100.0	487,300	6,764,000	9,870,000
Appalachian	91.8	102,200	1,489,000	1,188,000	91.8	83,900	1,374,00	1,250,000
Ind., Ill., Ky.	98.9	314,300	5,558,000	4,433,000	96.6	297,700	5,852,000	3,801,000
Okla., Kans., Mo.	89.6	230,700	3,354,000	3,454,000	89.6	312,300	2,755,000	5,016,000
Tex. Gulf	99.3	433,300	5,216,000	8,158,000	99 3	381,600	6,029,000	7,642,000
La. Gulf	100.0	93,100	1,477,000	4,593,000	100 0	127,700	1,229,000	1,755,000
Inland Texas	76.5	96,000	1,228,000	2,369,000	91 3	516,000	7,156,000	10,704,000
La. and Ark.	97.0	41,300	125,000	747,000	98 9	195,100	1,343,000	2,703,000
Rocky Mtn.	89.4	43,300	1,848,000	649,000	89.3	53,900	1,753,000	849,000
California	96.7	480,100	12,950,000	99,342,000	96.7	457,300	11,345,000	98,443,000
Total U. S.	95.1	2,288,000	39,513,000	132,635,000	94.6	2,404,000	38,342,000	132,636,000



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table.

Natural Gasoline Now Recognized as Dominant Factor in Chicago Area Motor Fuel Market

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, July 18.—One of the most encouraging signs in the gasoline tank car markets is the open recognition which refiners in the Chicago district are giving to the serious problem of natural gasoline competition. Refiners formerly avoided discussion of the subject and expostulated when the rivalry between gasoline and blended motor fuel has been analyzed in the press. Most refiners in the district now admit that the first step for revival of the gasoline tank car markets, and, in consequence, the service station and tank wagon markets, must be a substantial advance in the natural gasoline tank car markets, especially in the 15-pound and lower materials. Contrary to past experiences natural gasoline appears to be bringing better prices in the Chicago district than elsewhere in the territory, while naphthas are in good call and moving forward.

The only product the refiners have to worry about, so far as this district is concerned, is the 15-pound material of around 65 octane number and 98 per cent or better recovery, which is offered this week at 3 cents to 3⅛ cents, Group 3, an eighth to a quarter of a cent higher than last week. A check over the distributors reveals that little natural of other classifications is in demand. It has been found that these distributors are making a 50-50 blend of the 3-cent natural and 3⅜-cent 50-52 gravity, 450 endpoint or lower (410° endpoint in a few cases), for a total cost of 3.63 cents a gallon, Group 3, with the price to the trade held at 4 cents a gallon. Observers say that there are about 500 cars of this natural gasoline on the market, and that a decision on the part of major companies to lose from $50,000 to $100,000 over the next six months in cleaning up this situation will repay these companies many times over.

Price Cutters Losing Money

However, the low costs made possible by the use of blended motor fuels is not relieving the price cutters in the least, and it is becoming evident that a minority in the industry cannot continue to prosper while the majority suffers. The situation in Milwaukee is a case in point, and one that is duplicated in Chicago, Detroit, St. Louis, Minneapolis and other important points in the industry. In Milwaukee the service station operator pays 4 cents a gallon Group 3 for his motor fuel. To this is added the 2.72 cents freight rate and the 5 cents in state and Federal taxes, for a total of 11.72 cents a gallon. When this operator sells his eight gallons of gasoline or blend for $1 he makes 0.78 cent on the gallon. Out of this he must pay the rent, the attendants, handling charges (at least 0.5 cent a gallon), and other expenses. If he can salvage a profit he is a wizard or a tax evader. The following table shows the types of gasolines and motor fuel blends used by price cutters in Chicago to take business from the major and semi-major companies. All of the companies whose materials are listed below are underselling competition by a cent to a cent and a half on the third grade, and by as much as 3 cents on the regular grade.

	A Low	A High	B Low	B High	C High	C Low	D Low	D High	E High
Gravity	62.6	63.7	60.6	60.8	63.8	63.5	62.5	62.6	56.2
Doctor	neg.	neg.	neg.	neg.	neg.	neg.	neg.	neg.	neg.
Initial (degrees)	92	90	95	92	58	90	90	84	94
@ 158°	19.0	24.0	13.5	16.0	24.0	23.2	22.0	24.0	27.0
@ 212°	36.8	42.0	31.0	34.5	43.5	42.5	39.0	40.0	64.9
@ 284°	63.0	67.0	59.5	63.8	67.5	66.5	64.2	65.5	79.0
@ 392°	94.0	95.2	93.2	96.2	96.0	95.8	95.0	96.0	....
Endpoint (degrees)	413	403	416	397	400	404	406	400	391
Recovery	97.0	96.8	97.0	97.5	97.2	97.2	96.8	97.5	97.3
Octane number	56.8	57.3	57.3	67.3	66.5	58.3	65.2	66.5	73.0
Gum mg/100	20.6	12.6	9.2	5.6	5.2	2.0	13.4	4.8	0.4

Distillation curves of several of these motor fuels are interesting. Initial and the successive 10 per cent points of some of these are as follows: A, high, 95 initial, 147, 180, 209, 235, 260, 288, 315, 343, 377 and 416 endpoint; B, low, 92 initial, 141, 170, 200, 228, 254, 279, 304, 335, 364, and 397 endpoint; C, high, 90 initial, 127, 150, 177, 206, 237, 265, 295, 327, 360, and 404 endpoint; D, high, 84 initial, 123, 148, 178, 212, 244, 273, 302, 332, 362 and 400 endpoint.

Hot Weather Boosts Demand

Hot weather records hung up more than 50 years ago tumbled last week and many offices in the city were closed on at least one afternoon and the highways out of the sweltering district were laden with motorists seeking cool breezes. Some of the larger companies with numerous retail shops reported sharp increases in gallonage, while owners of one or two stations benefited in a less degree. Service attendants said that they never expected to have so many 2 and 3-gallon customers and that more than 50 per cent of the sales were in the lowest priced gasoline.

The state gasoline inspection figures covering June and July are expected to show a large bulge in gasoline movement in the metropolitan area. The gasoline inspection figures covering May have just been released and total 35,109,660 gallons as compared with 33,485,391 gallons in April. However, the figures for May of 1931 totaled 38,969,239 gallons, or 3,859,579 gallons more than in May of 1932. Figures for the first five months of 1932 and 1931 compare as follows: January, 1932, 31,492,114 gallons; 1931, 31,943,026 gallons. February, 1932, 28,310,697 gallons; 1931, 28,870,274 gallons. March, 1932, 31,743,086 gallons; 1931, 30,230,905 gallons. April, 1932, 33,485,391 gallons; 1931, 36,752,698 gallons. May, 1932, 35,109,660 gallons; 1931, 38,969,239 gallons.

Report Distress Material Eliminated

Distributors and jobbers in Chicago district report that the 4-cent and 4⅛-cent U. S. Motor gasoline which was disturbing the Chicago markets last week is now out of the way, and that it would be difficult to find five cars of transit material at as low as 4⅛ cents a gallon, Group 3. There is better feeling about the middle octane gasoline and this material has taken its proper place above the no antiknock specifications gasoline in the district markets. However, certain refiners are providing the high bracket material (72-73 octane) to large accounts at as low as 5 cents a gallon. It happens that these are accounts which have just come into the business and it is possible, indicated by experience, that as time goes on these refiners will raise the ante when the accounts become well established. However, again, one large account last year did not like the idea of paying higher prices and found, he reports, a better source of gasoline abroad. A little U. S. Motor gasoline can still be bought in the district at 4¼ cents by resellers, but these in turn are generally holding out for a quarter of a cent instead of an eighth of a cent profit.

The gasoline tank car markets have stiffened and material is being offered much less freely and at an eighth of a cent above last week's quotations. The higher test materials improved with a slight narrowing in the price range toward the top, but are in slight demand. Foreign news is encouraging and reports from East Texas indicate that the authorities mean to hold per well production in the field to 46 bbls., a cut of 4 bbls. per well. The refiners and marketers in the district feel that the Gulf Coast merits attention of the authorities and they point out that especially in the lubricating oils and fuels the Gulf Coast exerts a depressing influence.

Jobber Buying in the Offing

Jobber buying is still in the offing, although the heavy auotmobile traffic which has been apparent for nearly a week should certainly be reflected in a bulge in orders this week. Some of the larger distributors say that they have enough gasoline for their requirements for the remainder of the month, but it is understood that they will buy if the markets give indications of moving upward. In fact, it has been their policy to wait for the upward turn before going into the markets in a large way.

The gasoline markets are much improved, but it is probable that the open markets will continue to reflect dullness until definite assurance is given that the district will not be flooded with distress gasoline as soon as certain refiners can get the required crude oil. An interesting letter was written in East Texas last week. It was a missive from some type of promoter (racketeer in Chicago) to a crude oil producer, in which the promoter offered the producer 42 cents a barrel for all of the oil the well operator would overproduce. Laxity on the part of officials in the field would soon result in breaking the gasoline markets, and it has been seen how gasoline markets have influenced the crude oil markets, rather than the logical reverse.

Gasoline tank car prices Monday were slightly higher than last week as follows: U. S. Motor, 4½ cents to 4⅝ cents; 60-62, 400 endpoint gasoline, 4⅝ cents to 4¾ cents; 64-66, 375 endpoint gasoline, 4¾ cents to 4⅞ cents; avaition, fighting grade (not antiknock U. S.), 5⅛ cents to 5⅜ cents; 68-70, 360 endpoint gasoline, 4⅞ cents to 5 cents.

Naphtha Tank Car Markets

There were three price changes in the naphtha tank car markets Monday; two were advances and one was a decline. The 50-52, 450 endpoint naphtha used in making blended motor fuel was in good demand and bringing an eighth of a cent better price than last week without difficulty. Several blending naphthas of much lower endpoints are taken promptly at 4⅛ cents to 5 cents in Chicago. Higher prices were being paid for natural gasoline and the continued good movement of the blending naphthas indicate the important place which blended motor fuel has taken in the Chicago markets. Rubber solvent, 68-70° gravity, 100-300, was traded in more actively and the price advanced a quarter of a cent to a range of 6¼ cents to 6½ cents. Stoddard solvent was in fair demand, but price cutting practices prevented any movement at the low of last week, 5¾ cents, and important sellers revised their quotations downward a quarter of a cent to a range of 5½ to 5¾ cents. There was also a nice pick-up in petroleum thinner business, although prices remain unchanged at 5 cents to 5¼ cents.

While there has been no discernible reason in this district for any betterment in the kerosene tank car markets, continued inactivity being manifest, there appears to be a better tone in these markets which may or may not be explained by the real betterment in the straw distillate markets. Possibly refiners are using a good part of their kerosene production to cut distillates, and it may be that refiners have finally begun to reform their heavy naphtha cuts. The fact is that the materials are being offered less freely with the 41-43 water white kerosene quoted at 2⅝ cents to 2⅞ cents, and the 42-44 water white koresene considered firmer but unchanged in price at 2¾ cents to 3 cents.

Fuel Oil and Distillates

The fuel oil and distillate markets have a much better tone this week. Refiners say that they do not intend to run crude oil to produce fuel oils and distillates, and for this reason they are more than reluctant to consider fuel oil and distillate contracts until they have a clearer estimate of their probable gasoline requirements. One of the largest sellers of fuels in the territory of 11 states says that a survey by his company reveals a scarcity in suitable materials. There is about a third as much of these fuels in the territory, this official says, as there was at this time last year. He pointed out, however, that there might be trouble from some of the heavier fuel oils as industrial demand is about 18 per cent of what it should be in normal times. One product appears to be definitely dissociated from the Group 3 markets. This is a 16° gravity fuel oil which is recycle material of 60 to 70 pour test and comparatively high sulphur content. The price of this material delivered in the Chicago switching district is 96.6 cents to $1.05 a barrel. Based on the Group 3 markets the low of the range represents a price of about 0.1 cent a gallon, while the high represents a Group 3 price per barrel of 12 cents. This material cannot be considered a serious threat to the fuel oil markets. The Michigan situation is somewhat better following a 10-cent advance posted for the Midland Field by Pure Oil Co., bringing the price of this crude to 85 cents a barrel.

The 38-40 light straw distillate used as tractor fuel advanced an eighth of a cent to a range of 2 cents to 2⅛ cents, and the straw material of this gravity showed a similar improvement Monday at 1⅞ cents to 2 cents. The 32-36 straw zero distillate likewise advanced an eighth of a cent to a range of 1¾ to 1⅞ cents. Other materials remained unchanged in price.

T. P. ADAMS DIES

FORT WORTH, Tex., July 18.—T. P. Adams, 57, pioneer oil developer of Wichita Falls, Tex., died at Longview, July 15.

Gasoline Showing Steady Undertone in Eastern Market, But Export Business Is Still Dull

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, July 18.—Refinery markets in East Coast territory were rather uneventful during the past week, the outstanding feature being the steady undertone on gasoline and the continued heavy demand for motor fuel for refinery shipment. While there was still some cutting under the "official" posted prices in the tank car market, this competition was not of sufficient importance to justify any change in posted prices, and the principal refiners and marketers were adhering to former price levels. The cutting, it is stated, does not reflect accurately the actual position of the current market, but is due in large measure to resale transactions by buyers who bought a month ahead prior to the recent upswing in East Coast refinery quotations.

Continued dullness in the export market position is giving the industry cause for concern, although such a development had been predicted as a natural outcome of the changed market conditions resulting from the import taxes on crude and products. Caribbean refineries, faced with the loss of their former outlets in the United States markets, are proving more formidable competitors on export business, creating just one more obstacle which domestic refiners must hurdle to continue to participate in foreign cargo business.

Consumption of motor fuel in East Coast territory thus far in the year has been maintained at higher levels than the trade had been led to expect, and the belief is growing that earlier predictions as to the probable decline in volume for the year will prove to have been excessive, so far as this area is concerned.

Tank Wagon Gasoline

No general changes in tank wagon or service station price schedules were reported in the East during the week. Tank wagon and retail markets remain steady in most sections of the territory, recent downward revisions having readjusted New England markets at points where local price cutting had reached the point where the volume of the major marketers was being affected.

Quotations in metropolitan New York continue 2 to 3 cents a gallon under the general level for the remainder of the territory, and while numerous rumors have been circulating during the past few weeks as to a probable upward move, major marketers as yet have given no definite indications of a pending advance.

Tide Water's new high octane number gasoline, produced at its new cracking units in Bayonne, is understood to have materially increased the company's sales in this territory, and Texaco's new "Fire Chief" gasoline, also a high octane motor fuel, is going well. Sales of premium priced fuels, it is reported, have been adversely affected in some areas due to the stressing of the improved quality of regular gasolines, which are being pushed as "premium quality at regular price." Sun Oil Co. is also extending its sales somewhat in metropolitan New York teritory.

Kerosene

A dull market for kerosene was reported at the refineries during the week, but refiners continued to post 5½ to 6 cents per gallon, in tank car lots, for 41-43 water white. Demand was being held down to small lots, for immediate shipment. Tank wagon kerosene gallonage, however, had shown a little improvement during the week, and prices were unchanged.

Lubs

Demand for bright stocks had shown improvement and refiners reported that both the light and dark grades were moving in better volume, with prices steady at recently advanced levels. Business in other grades of cylinder stocks had quieted down somewhat, following the price advances of the previous week, but refiners continued firm in their price views and were looking for an early resumption of buying on a broader scale.

Demand for red and pale oils continued slack. Consuming manufacturers in many industries bought heavily prior to the effective date of the excise tax of 4 cents per gallon, and this has made for a dull market since that time. As a result of curtailed operations in many lines of industry, it is expected that current lub oil stocks of these users will last until well into the fall season. Many manufacturers, however, owing to their unwillingness to weaken their cash position by large purchases to add to inventories, did not cover more than a month or two in advance, and these buyers are expected back in the market shortly.

Fuel Oil

Protest has developed in steamship circles over the recent increases in bunker fuel costs, particularly on the part of operators of fleets under American registry, who contend that they are entitled to a drawback of 21 cents per barrel on imported bunker oil purchases, but the situation has not yet been clarified by a ruling from the Bureau of Internal Revenue, and refiners contend that the current posted price of 85 cents per barrel, at terminals, is fully justified by current conditions in the oil market.

Imports of fuel oil were sharply off during the week ended July 9, and major companies are expected to hold down their imports of this oil to quantities disposable in tax-exempt quarters.

There was a good volume of bunker oil business reported during the week, and the market undertone remained steady.

Diesel Oil

East Coast refiners are proceeding on the theory that Diesel oil sold to large marine consumers is not taxable as a motor fuel, although an official ruling has not yet been received. One large refiner, selling at the Gulf, has been adding 1 cent per gallon on all sales to cover tax in the event that the Government ruling is to this effect.

Refiners here continue to quote the Diesel oil market at $1.65 per barrel, in bulk, f.o.b. terminals, with 6½ cents per barrel added for barging alongside within harbor limits. Contract withdrawals have been well maintained, and a fair volume of spot buying was in evidence throughout the period.

Sales of Diesel oil to motorboats in this area are negligible, from the standpoint of gallonage, but sellers are collecting the tax of 1 cent per gallon to cover these sales.

Gas Oil

The posted price for 28-30 recycled gas oil here is held unchanged at 4 cents per gallon, in tank car lots, with a fair contract movement reported and a little spot business in evidence.

The posted price is not being fully adhered to in spot sales, however, and gas oil can still be had at 3¾ to 3⅞ cents per gallon in a few instances. Contract deliveries are generally moving out at an average of one-half cent per gallon under the present posted price, these sales having been made on contracts booked earlier in the year, when the market was much easier.

Refiners have booked a substantial gallonage on low-grade gas oils for delivery over the coming winter season on domestic heating oil contracts. This oil is deliverable on contracts which have been booked with consumers calling for a retail price of 6½ cents per gallon, tank wagon delivery, in lots of 150 gallons and over.

Petrolatum

Manufacturers of petrolatum are having trouble in straightening out questions relating to the new tax. Petrolatum carries a tax of 10 per cent when made into hair dressings, cold creams, or other cosmetics, the tax being payable by the one who converts the petrolatum into toilet articles. The Bureau of Internal Revenue has ruled that the refiner, and not the packaging or labeling proprietor, is taxable on sales of perfumed petrolatum in bulk.

Sales of petrolatum for use as lubricants or for inclusion in blended lubricants carry the tax of 4 cents per gallon, and considerable difficulty in so classifying sales is looked for.

There were no price changes reported on petrolatum during the week, but the market undertone was somewhat steadier, and demand had improved a little, particularly on the white grades.

Paraffin Wax

Spot business was still relatively light during the week, and inquiry for forward deliveries was routine. Buyers have evidenced extremely bearish price views during recent weeks, and although they have been successful in obtaining fractional price concessions in some instances, the general market holds unchanged at quoted prices.

Export inquiry for fully refined paraffin has picked up somewhat, and white crude scale and semirefined grades are also coming in for a better demand for shipment abroad.

Gulf Export Market

Continued quiet continued in evidence in the Gulf export market, no cargoes being reported booked and no new inquiries developing. It is reported that more gasoline is moving out of the Caribbean to Europe than formerly, these shipments replacing former export movement from the American Gulf, but no open market prices are being quoted at Caribbean refineries. Posted prices on both gasoline and kerosene were unchanged at the Gulf throughout the week.

Rumanian exporters again have lowered their f.o.b. Constanza quotation on 730 gravity gasoline, which was quoted at $16.40 per ton as of July 2, a reduction of 24 cents for the week and a drop of 49 cents for the fortnight. Other products, however, were advanced 12 cents per ton, to $6.92 for lamp oil, $10.32 for first grade white spirit and $8.38 per ton for second grade white spirit. Gas oil was unchanged at $5.96 per ton, and fuel oil at $3.58 per ton. As a result of the Paris conference, Rumanian production of crude will be cut 24 per cent if the rank and file of the industry in that country approves the plan, with a consequent lightening of export selling pressure on Rumanian refined products.

Petroleum Exports

With the exception of lubricating oils and paraffin waxes, export movement of all of the major refined products showed a sharp decline locally. The following table shows exports of principal refined petroleum products from the port of New York for the past three weeks (all figures in gallons unless otherwise noted):

	Week ended		
	July 9	July 2	June 25
Gasoline	20,000	220,000	7,000
Naphtha	8,000	385,000	.....
Kerosene	4,000	158,000	4,000
Fuel and gas oil	220,000	44,000	31,000
Lubricating oil	3,920,000	1,100,000	1,055,000
Petroleum, ref'd.	20,000	1,006,000	70,000
	Pounds		
Paraffin wax	1,030,000	895,000	860,000
Refined	.....	.....	200,000
Scale	30,000	10,000	13,000
Lub. grease	575,000	560,000	495,000

There were two unusually heavy lubricating oil shipments reported. The Anglo-American Oil Co. (Standard of New Jersey) tanker Winnebago cleared with close to 2,000,000 gallons of various grades of lubricating oils for London, while the tanker Hanseat, owned by Baltische Amerikanische Petroleum-Import, G.m.b.H., cleared with approximately 2,500,000 gallons of lub oils for Rotterdam and Hamburg. These shipments do not represent open market purchases, however.

Imports

The effects of the new tariff were more fully apparent in import totals for the week ended July 9, the second full week in which the new duties were effective. Imports of crude and refined petroleum at the principal United States ports for the week totaled 369,000 bbls., a daily average of 52,714 bbls., compared with 1,217,000 bbls., a daily average of 173,857 bbls. for the previous week and a daily average of 225,786 bbls. for the four weeks ended July 9. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	369,000
Total	369,000
Daily average	52,714

There were no imports at Gulf Coast ports during the week.

New York imports consisted of 276,000 bbls. of crude and 93,000 bbls. of fuel oil.

California Oil Receipts

A sharp increase in California petroleum receipts was reported for the week ended July 9, the week's total being 384,000 bbls., a daily average of 54,857 bbls., compared with 198,000 bbls., or 28,286 bbls. per day, in the previous week, and a daily average of 32,036 bbls. for the four weeks ended July 9. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	78,000
Philadelphia	233,000
Others	73,000
Total	384,000
Daily average	54,857
Daily average four weeks	32,036

There were no receipts at Gulf Coast ports during the week.

All of the week's receipts at Atlantic Coast ports consisted of gasoline.

At the close of the week, the following cargoes were reported afloat for Atlantic Coast ports:

For New York, 130,000 bbls. of gasoline on the Tamiahua (Richfield Oil Co. tanker).

For New York, 63,000 bbls. of gasoline on the Betterton (Associated Oil Co. of California tanker).

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21.

Gasolines

	July 19		July 12	
OKLAHOMA (Group 3)—				
*U. S. Motor	.04½	.05	.04½	.05
60-62 400	.04⅝	.05	.04⅝	.05
64-66 390	.04¾	.05⅛	.04¾	.05⅛
64-66 375	.04¾	.05⅛	.04¾	.05⅛
68-70 350	.04⅞	.05¼	.04⅞	.05¼
NORTH TEXAS—				
*U. S. Motor	.04⅜	.04½	.04⅜	.04½
60-62 400	.04½	.04⅝	.04½	.04⅝
64-66 390	.04⅝	.04¾	.04⅝	.04¾
64-66 375	.04⅝	.05	.04⅝	.05
64-66 360	.04⅞	.05⅛	.04⅞	.05⅛
†NORTH LOUISIANA—				
*U. S. Motor	.05¼		.05¼	
60-62 400	.05⅝		.05⅝	
†ARKANSAS—				
*U. S. Motor	.05¼		.05¼	
CHICAGO Based on Okla. (Group 3)—				
*U. S. Motor	.04½	.04⅝	.04⅜	.04½
60-62 400	.04⅝	.04⅞	.04½	.04⅝
64-66 375	.04¾	.04⅞	.04⅝	.04⅞
Aviation fighting grade	.05⅜	.05⅝	.05⅜	.05⅝
68-70 360	.04⅞	.05	.04¾	.05

Octane Ratings—Above quotations cover price ranges on gasoline in which no octane rating is given. On July 19, in the case of the U. S. Motor and 60-62 400 endpoint, grades where an octane rating of 57 65, inclusive, is guaranteed, prices are three-eighths cent per gallon higher than quotations shown in above tables; where an octane rating of better than 65 is guaranteed, the prices are five-eighths cent higher. In the case of the remaining grades, gasolines of 65 octane rating or higher are quoted one-half cent higher than the quotations shown in above tables.

Unless otherwise provided by agreement of buyers and sellers, the Series 30 testing equipment of the Ethyl Gasoline Corp is recognized as standard in determining octane ratings.

*Present distillation specifications on U. S. Motor gasoline are: 10 per cent evaporated, 167° F. maximum; 50 per cent, 284° F. maximum; 90 per cent, 392° F. maximum; residue not exceeding 2 per cent; maximum vapor pressure, 12 pounds. Additional specification on U. S. Motor gasoline available from bulletins of Bureau of Mines, Washington, D. C.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.06⅝	.06¾	.06½	.06¾
60-62 400	.06¾	.06⅞	.06⅝	.06¾
64-66 375	.06¾	.07	.06¾	.07
68-70 350	.07	.07¼	.06⅞	.07⅛

Octane Ratings—In the case of U. S. Motor and 60-62 400 endpoint grades, same price differentials based on octane ratings as shown in above tables for Oklahoma and other Mid-Continent areas.

CALIFORNIA (domestic movement only)—				
54-58 U. S. Motor	.06½	.07½	.06½	.07½
58-60 400	.06¾	.07¾	.06¾	.07½
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.07⅜	.08	.07¾	.08
Boston	.08		.08	
Baltimore, Md.	.07¾	.08	.07¾	.08
Charleston, S. C.	.07¼	.08	.07¼	.08
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.08¼	.08½	.08¼	.08½
Boston	.08½		.08½	
Baltimore, Md.	.08¼	.08½	.08¼	.08½
Charleston, S. C.	.08½	.08¾	.08½	.08¾
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.05½	.05¾	.05½	.05¾
U. S. Motor, below 65 octane number	.05¼	.05½	.05¼	.05½

Naphthas

	July 19		July 12	
OKLAHOMA (Group 3)—				
50-52 450 (blending)	.04½	.04⅝	.04½	.04⅝
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.06½	.06¾	.06¼	.06¾
ARKANSAS—				
48-50 450 (blending)	.05	.05⅛	.05	.05⅛
CHICAGO Based on Okla. (Group 3)—				
50-52 450 (blending)	.04½	.04⅝	.04⅜	.04⅝
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06¼	.06½	.06¼	.06½
Lacquer diluent, 180 i.b.p.-250 e.p.	.08½	.08¾	.08½	.08¾
Lacquer diluent, 140 i.b.p.-200 e.p.	.09	.09½	.09	.09½
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.06¼	.06½	.06	.06¼
Stoddard solvent, 300 i.b.p.-410 e.p. over 100° flash	.05½	.05¾	.05⅜	.06
Pet. thinner, 290, 300 i.b.p., 415 e.p., over 83° flash	.05	.05¼	.05	.05¼
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06	.06¼	.06	.06¼
Petroleum spirits	.04⅛	.05¼	.04⅛	.05¼

Natural Gasolines

	July 19		July 12	
OKLAHOMA (Group 3)—				
Grade 18-55	.02⅜	.02½	.02¼	.02⅜
Grade 26-70	.02	.02⅛	.01⅞	.02
Grade 30-70	.01¾	.02	.01⅝	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02⅞	.03	.02⅞	.03
11 lb. v.p. (max.)	.03⅜	.03¾	.03⅜	.03¾
NORTH TEXAS—				
Grade 18-55	.02⅜	.02½	.02¼	
Grade 26-70	.01⅞	.02	.01¾	.01⅞
Grade 30-70	.01¾		.01⅝	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02¾	.02⅞	.02¾	.02⅞
11 lb. v.p. (max.)	.03⅜	.03¾	.03½	.03¾
NORTH LOUISIANA—				
Grade 26-70	.02¼		.02⅛	
CALIFORNIA—				
75-78 375	.04½	.05¼	.04¾	.05½

Note—Grades 18-55, 26-70 and 30-70 are three of 24 grades adopted by the Natural Gasoline Association of America effective January 1. The grades are based on pounds vapor pressure and amount evaporated at 140° F. While not exactly the same specifications apply, Grade 18-55 corresponds to the former Grade A, Grade 26-70 to former Grade AA and Grade 30-70 to former Grade BB.

*All grades have minimum recovery of 96 (natural gasoline method).

Kerosenes

(All kerosenes water white)

	July 19		July 12	
OKLAHOMA (Group 3)—				
41-43	.02⅝	.02¾	.02⅝	.02¾
42-44	.02¾	.03	.02¾	.03
NORTH TEXAS—				
40-41	.02½		.02½	
41-43	.02½	.02⅝	.02½	.02¾
†NORTH LOUISIANA—				
41-43	.03¼		.03½	
42-44	.03½		.03½	
†ARKANSAS—				
41-43	.03¼		.03¼	
PENNSYLVANIA (inland refineries)—				
45	.04⅝	.04¾	.04¾	.04⅞
46	.04¾	.04⅞	.04¾	.05
47	.04⅞	.05⅛	.05	.05¼
CHICAGO (Based on Group 3)—				
41-43	.02⅝	.02⅞	.02¾	.02¾
42-44	.02¾	.03	.02¾	.03
*CALIFORNIA—				
38-40 high burning test	.04	.05	.04½	.04¾
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04¼	.04½	.04¼	.04½

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Tractor Fuels*

	July 19		July 12	
OKLAHOMA (Group 3)—				
39-40 prime white	.02	.02⅛	.02	.02⅛
38-40 light straw	.02		.02	
NORTH TEXAS—				
38-40 light straw	.02	.02⅛	.02	.02⅛
CHICAGO (Based on Group 3)—				
38-40 light straw	.02	.02⅛	.01⅞	.02
PENNSYLVANIA (inland refineries)—				
41-43 prime white	.03¾	.04	.03¾	.04

*There are no standard specifications for tractor fuels. Grades commonly sold have flash under 175° F. (open cup) and under 575° F. endpoint and less than .2 per cent sulphur. Tractor fuels are available from all Mid-Continent refining groups at prices in line with the Oklahoma market taking into consideration differentials in freight rates.

Furnace Oils*

	July 19		July 12	
OKLAHOMA (Group 3)—				
32-36 straw	.01¾		.01¾	
36-38 straw	.01¾	.01⅞	.01¾	.01⅞
38-40 straw	.01⅞	.02	.01⅞	.02
39-41	.02	.02⅛	.02	.02⅛
NORTH TEXAS—				
38-40 straw	.01⅞	.02	.01⅞	.02
†NORTH LOUISIANA—				
36-40	.02¼	.02½	.02¼	.02½
†ARKANSAS—				
32-36	.02¼	.02½	.02¼	.02½
CHICAGO (Based on Group 3)—				
32-36 straw	.01⅝	.01¾	.01⅝	.01¾
38-40 straw	.01¾	.01⅞	.01¾	.01⅞
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03¼	.03½	.03¼	.03½
NEW YORK (Bayonne, N. J.)—				
32-36	.04	.04½	.04	.04½
36-40	.05	.05½	.05	.05½

*Above prices are for furnace oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

	July 19		July 12	
OKLAHOMA (Group 3)—				
32-36 (G.O.) cracking stock	.01⅜	.01½	.01⅜	.01½
U.G.I. (G.O.)	.01¼	.01⅜	.01¼	.01⅜
32-36, zero to 15 (G.O.) high flash	.01½	.01⅝	.01½	.01⅝
28-30, zero to 10	.50	.55	.52½	.55
26-30, zero to 10	.50		.50	
24-26	.42½	.45	.42½	.45
20-22	.40	.45	.40	.45
16-20	.35	.40	.35	.40
Below 16	.32½	.35	.32½	.35
NORTH TEXAS—				
32-36 (G.O.) industrial	.01¼	.01⅜	.01¼	.01⅜
22-26	.45	.50	.45	.50
Below 20	.35	.45	.35	.45
NORTH LOUISIANA—				
32-36 (G.O.) zero	.02		.02	
14-16	.35	.40	.35	.40
†ARKANSAS—				
32-36 (G.O.) zero	.02		.02	
14-16	.32½	.35	.32½	.35
CHICAGO (Based on Group 3)—				
32-36 (G.O.) industrial	.01¼	.01⅜	.01¼	.01⅜
28-30 (zero)	.55	.60	.55	.60
22-26	.40	.45	.40	.45
18-22	.25	.30	.25	.30
Below 18	.22½	.27½	.22	.27½
PENNSYLVANIA (inland refineries)—				
36-40	.03	.03¼	.03	.03¼

Note—Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.70	.85	.70	.85
27 plus Diesel	.70	.85	.70	.85
15-19 Bunker (at tidewater)	.55	.75	.55	.75
15-19 Bunker (cargo lots)	.50	.65	.50	.65
15-19 Bunker (tank car)	.45	.65	.45	.65
GULF COAST—				
28-30 (G.O.)	.03	.03⅛	.03	.03⅛
28-30 Diesel	1.50		1.50	
Bunker C (bulk cargoes)	.55	.60	.55	.60
Bunker C (bunkers)	.70		.70	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.04		.04	
*28-30 Diesel	1.65		1.65	
†Bunker C	.85		.85	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

	July 19		July 12	
Breeze (screenings)	3.50	3.75	3.50	3.75
Still runs	3.75	4.00	3.75	4.00
Lump and egg	5.00	5.50	5.00	5.50

*Refiners will absorb freight up to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

	July 19		July 12	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.09¾	.10	.09¾	.10
240-4	.09¼	.09½	.09¼	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10¼	.10½	.10¼	.10½
300-3.5	.11¾	.12	.11¾	.12
350-3.5	.12¼	.12½	.12¼	.12½
400-4	.12¾	.13	.12¾	.13
500-4.5	.13¼	.13½	.13¼	.13½
100-2 Paraffin Oil	.04¼	.04½	.04¼	.04½

15-30 Cold Test:				
200-3	.07¾	.08	.07¾	.08
200-4	.07½	.07¾	.07½	.07¾
240-3	.09¼	.09½	.09¼	.09½
240-4	.08¾	.09	.08¾	.09
280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¼	.10
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.15	.16	.15	.16
10 pour test	.14	.15	.14	.15
15 pour test	.13½	.14½	.13½	.14½
25 pour test	.12¾	.13¼	.12¾	.13¼
30 pour test	.12¾	.13	.12¾	.13
180 vis., No. 3, 25 pour test	.15¾	.16½	.15¾	.16½
200 vis., No. 3:				
Zero pour test	.22	.23½	.22	.23½
10 pour test	.21	.22	.21	.22
15 pour test	.19½	.20	.19½	.20
25 pour test	.18	.18½	.18	.18½
30 pour test	.17¾	.18	.17¾	.18
GULF COAST—				
Pale Oils:				
100-2-2½	.05		.05	
200-3	.06½		.06½	
300-3	.07		.07	
500-3½	.08	.08½	.08	.08½
750-3½	.09	.09½	.09	.09½
1,200-3½	.10½	.11	.10½	.11
2,000-4	.12	.12½	.12	.12½
Red Oils:				
200-5-6	.05	.05½	.05	.05½
300-5-6	.05½	.06	.05½	.06
500-5-6	.06¾	.07	.06¾	.07
1,200-5-6	.09½	.10	.09½	.10
2,000-6 plus	.11	.11½	.11	.11½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.07¾	.08	.07¾	.08
200-2½-3	.07¾	.08	.07¾	.08
300-3-3½	.08¼	.08½	.08¼	.08½
350-3-4	.08¾	.09	.08¾	.09
400-3-4	.09¼	.09¾	.09¼	.09¾
450-3-4	.09¾	.10	.09¾	.10
550-3-4	.10¼	.11	.10¼	.11
Red Oils:				
200-4½-5	.07	.07¼	.07	.07¼
300-5-6	.07½	.07¾	.07½	.07¾
350-5-6	.07¾	.08	.07¾	.08
400-5-6	.08	.08¼	.08	.08¼
450-5-6	.08¼	.08½	.08¼	.08½
500-5-6	.08½	.08¾	.08½	.08¾
600-5-6½	.08¾	.09	.08¾	.09
700-6½ plus	.09	.09¼	.09	.09¼
750-6½ plus	.09	.09½	.09	.09½
900-6½ plus	.12	.13½	.12	.13½
NEW YORK (Bayonne, N. J.)—				
Paraffin Oil:				
25 pale	.10¼		.10¼	
28 pale	.07¼		.07¼	
280 red	.12½		.12½	
250 red	.11½		.11½	
225 red	.10		.10	
200 red	.09¼		.09¼	

Bright and Steam Refined Stocks

	July 19		July 12	
OKLAHOMA (Group 3)—				
630 light green	.07¾	.08	.07¾	.08
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stock:				
190-200 D	.23		.23	
150-160 D, 0-10	.22		.22	
150-160 D, 10-25	.21½		.21½	
150-160 D, 25-40	.21		.21	
150-160 E	.21		.21	
PENNSYLVANIA—				
600 S.R.	.14	.15	.14	.15
650 S.R.	.17	.17½	.17	.17½
600 Pennsylvania flash	.18	.18½	.18	.18½
600 D filtered	.22½	.23	.22½	.23
600 E filtered	.17	.17½	.17	.17½
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis.				
210-540-550 flash:				
10 pour test	.28	.30	.28	.30
15 pour test	.27	.27½	.27	.27½
25 pour test	.26	.26½	.26	.26½
35 pour test	.26		.26	

Wax and Petrolatum

(Prices per pound)

	July 19		July 12	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.01⅝	.01¾	.01⅝	.01¾
PENNSYLVANIA—				
122-124	.01⅞	.02		
124-126	.02	.02	.02	.02¼
NEW YORK (Bayonne, N. J.)—				
Refined Wax:				
120-122	.02½		.02½	
125-127	.03		.03	
130-132	.03⅜		.03⅜	
133-135	.04		.04	
135-137	.04½		.04½	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02⅛		.02⅛	
Extra amber	.02⅝		.02⅝	
Cream	.04⅝		.04⅝	
Lily white	.05⅝		.05⅝	
Snow white	.06⅝		.06⅝	

Export Prices

	July 19		July 12	
GASOLINE				
GULF COAST—				
U. S. Motor	.04½		.04½	
60-62 400	.04⅝		.04⅝	
61-63 390	.04¾		.04¾	
64-66 375	.05		.05	
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55, 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.05		.05	
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-60 400 endpoint gasoline	.04¼	.05	.04¼	.05
KEROSENE				
GULF COAST—				
41-43 prime white	.04⅜		.04⅜	
41 water white	.04½		.04½	
LOS ANGELES, CALIF.—				
41-43 water white	.04	.05	.04	.05
LUBRICANTS				
NEW YORK (Bayonne, N. J.)—				
600, steam refined cylinder stocks, in bbls.	.22	.22½	.22	.22½
650, steam refined	.25	.26	.25	.26
600, Pennsylvania flash	.26	.27	.26	.27
630, Pennsylvania flash	.31	.32	.31	.32
600, Warren E	.24½	.25	.24½	.25
600, Oil City E	.23½	.24	.23½	.24
Light 140-150 Bright Stocks	.34	.35	.34	.35
Dark 140-150 Bright Stocks	.32	.33	.32	.33

Crude Oil Prices

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

East Texas (Apr. 1, 1932)† ..... $ .98
East Texas (April 11, 1932)‡ ..... .98
Corsicana heavy* ..... .64
Other fields ..... See gravity table

†Posted by Magnolia Petroleum Co., Sinclair Refining Co., Panola Pipe Line Co., Tidal Refining Co. and The Texas Company. ‡Gulf Pipe Line Co. and Atlas Pipe Line Co. *Magnolia Petroleum Co.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field) (Mar. 14, 1932) $2.02
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 1.75
Penna Grade Oil in Eureka Pipe Line Lines (West Virginia) (Feb. 26, 1932) 1.70
Penna Grade Oil in Buckeye Pipe Line Lines (Mar. 12, 1932) 1.55
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Apr. 26, 1932) 1.05
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931) ... .60

Pennzoil Co.
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines:
Group A $1.97
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 1.96
Includes Titusville district.
Group C 1.95
Includes Turkey and Tidiout districts.
Group D 1.94
Includes Bear Creek and Porkey districts.
Group E 1.92
Includes Eidenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.

Tide Water Pipe Co.
(Effective April 25, 1932)

Bradford, Pa. $2.02
Allegany, N. Y. 2.02

Pure Oil Co.
(Effective April 25, 1932)

Cabin Creek, W. Va. $1.70
Bradford Hollow, W. Va. 1.70
Kelly's Creek, W. Va. 1.70

TEXAS PANHANDLE

Gray County, Wheeler County and Carson-Hutchinson Counties.... See gravity table

ROCKY MOUNTAIN STATES

Ohio Oil Co.-Midwest Refining Co.

Iles, light (Aug. 24, 1931) ..... $ .75
Iles, heavy (Aug. 24, 1931) ..... .53
Fort Collins (April 11, 1932) ..... .86
Florence (April 11, 1932) ..... .80
Wellington (April 11, 1932) ..... .76
Greasewood Dome, Colo. (Apr. 11, 1932) 1.00
Dutton Creek (Apr. 11, 1932) ..... .82
Rock Creek, Wyo. (June 1, 1932) ... .90
Frannie, light (Nov. 3, 1931) ..... .61
Frannie, heavy (Nov. 3, 1931) ..... .51
Salt Creek..... Mid-Continent gravity table
LaBarge..... Mid-Continent gravity scale
Big Muddy (Apr. 11, 1932) ..... .98
Grass Creek (June 1, 1932) 1.10
Elk Basin (June 1, 1932) 1.10
Lance Creek (Apr. 11, 1932) 1.15
Poison Spider (Mar. 5, 1931) ..... .70
Notches (Mar. 14, 1927) ..... .65
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40
Rex Lake (Feb. 22, 1930) 1.10
Osage (Apr. 15, 1931) ..... .98
Lost Soldier (Apr. 13, 1932) ..... .80
Hamilton Dome (Nov. 3, 1931) ..... .45
Greybull (Apr. 11, 1932) 1.20
Cat Creek (Apr. 11, 1932) 1.20
Pondera (Nov. 3, 1931) ..... .90
Sunburst, Mont. (Apr. 11, 1932) 1.05
Hogback, N. Mex. (Aug. 24, 1931) .... .80
Border, Mont. 1.55
Red Coulee, Alberta 1.55
Lea County, N. Mex. (Apr. 1, 1932)*.. .65
Maljamar (Apr. 11, 1932) ..... .60
Artesia-Jackson (Apr. 11, 1932) ..... .65

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Midwest Refining Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County posted by Humble Oil & Refining Co. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

*Posted by The Texas Company, Humble Oil & Refining Co. met this price effective April 11.

WEST TEXAS

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties* ..... $ .65
Lea County, N. Mex. (See Rocky Mountain States.)
Toborg, Pecos County (Apr. 11, 1932)†.. .55

*Effective April 1, 1932, Magnolia Petroleum Co., The Texas Company. Effective April 11, Humble Oil & Refining Co. and Gulf Pipe Line Co. and Stanolind Oil & Gas Co. in Winkler County. †Shell Petroleum Corp.

GULF COAST

Grade A and Grade B classifications discontinued by leading buyers.....
.....See gravity table
Jennings, La. (Apr. 11, 1932)*..... $ .75
Lockport, La...See Gulf Coast gravity table
Refugio, light..... See gravity table
Refugio, heavy (Apr. 11, 1932)‡..... .80
Markham (Apr. 11, 1932)§.....
.....See Gulf Coast gravity schedule
High Island (Apr. 11, 1932)¶.....
.....See Gulf Coast gravity schedule

*Gulf Refining Co. †Magnolia Petroleum

(Continued on Next Page)

Crude Oil Gravity Table

	Kansas and Oklahoma 1	North and Central Texas 2	East Central Texas 3	Gray County, Texas 4	Carson and Hutchinson Counties, Texas 5	Salt Creek and LaBarge, Wyoming 6	North Louisiana and Arkansas 7	Gulf Coast (Texas-Louisiana) 8	Cameron, Meadows, Louisiana 9	Iowa and Lockport, Louisiana 10
Below 25 degrees	....	....	$.67	....	....	....	$.68	$.80	$ 70	$.80
25-25.9 degrees	....	....	.67	....	....	....	.70	.81	71	.81
26-26.9 degrees	....	....	.67	....	....	....	.72	.82	.72	.82
27-27.9 degrees	....	....	.67	....	....	....	.74	.83	.73	.83
28-28.9 degrees	....	....	.76	....	....	....	.76	.84	.74	.84
Below 29 degrees	$.76	$.76	....	....	....	$.76	....	....	....	....
29-29.9 degrees	.78	.78	.78	....	....	.78	.78	.85	.75	.85
30-30.9 degrees	.80	.80	.80	....	....	.80	.80	.86	.76	.86
31-31.9 degrees	.82	.82	.82	....	....	.82	.82	.87	.77	.87
32-32.9 degrees	.84	.84	.84	....	....	.84	.84	.88	.78	.88
33-33.9 degrees	.86	.86	.86	....	....	.86	.86	.89	.79	.89
34-34.9 degrees	.88	.88	.88	$.76	$.66	.88	.88	.90	.80	.90
35-35.9 degrees	.90	.90	.90	.78	.68	.90	.90	.91	.81	.91
36-36.9 degrees	.92	.92	.92	.80	.70	.92	.92	.92	.82	.92
37-37.9 degrees	.94	.94	.94	.82	.72	.94	.94	.94	.84	.94
38-38.9 degrees	.96	.96	.96	.84	.74	.94	.96	.96	.86	.96
39-39.9 degrees	.98	.98	.98	.86	.76	.94	.98	.98	.88	.98
40 degrees and over	1.00	1.00	1.00	.88	.78	.94	1.00	1.00	.90	1.00

Note—Magnolia Petroleum Co.'s prices in Oklahoma, North Texas and Central Texas, effective April 1, are the same as above given in Columns 1 and 2, excepting that the schedule begins with below 28 degrees, 67 cents; 28-28.9 degrees, 76 cents. The Empire Pipe Line Co. met the Magnolia prices in Kansas and Oklahoma; the White Eagle Oil Corp. in Kansas and the Pure Oil Co., in Oklahoma.

Column 1—Effective April 1, 1932, Continental Oil Co. in Oklahoma and Kansas; Barnsdall Refineries, Inc., and Standish Oil Co. (Phillips Petroleum Co.), in Oklahoma and Kansas; Skelly Oil Co., Kanotex Refining Co., Derby Oil Co., Vickers Petroleum Co., in Kansas; Magnolia Petroleum Co. and Pure Oil Co., in Oklahoma (see note above); White Eagle Oil Corp., in Kansas (see note above); The Texas Company in Oklahoma. Effective April 11, 1932, Stanolind Crude Oil Purchasing Co. in Oklahoma and Kansas; Gypsy Oil Co., Mid-Continent Petroleum Corp., Champlin Refining Co., Eason Oil Co., Pepper Gasoline Co. and Carter Oil Co. in Oklahoma. Carter Oil Co.'s schedule begins at below 25 degrees, 68 cents, with 2 cents added for each degree upward.

Column 2—Continental Oil Co., effective April 1, in North Texas only; followed on same day by The Texas Company in North and Central Texas; Magnolia Petroleum Co. in North and Central Texas (see note above); effective April 11, the Humble Oil & Refining Co., Gulf Pipe Line Co. and Stanolind Crude Oil Purchasing Co.

Column 3—Effective April 1, 1932, the Magnolia Petroleum Co., effective April 11, 1932, Humble Oil & Refining Co.

Column 4—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, the Philtex Oil Co. (Phillips Petroleum Co.), but its schedule was carried down to below 30 degrees at 66 cents, with 2 cents added for each degree upward. Effective April 11, other companies met Continental schedule.

Column 5—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, Philtex Oil Co., excepting that latter company carried its schedule down to below 30 degrees at 56 cents, with 2 cents added for each degree upward. Effective April 11, Continental Oil Co. and Gulf Pipe Line Co. met Magnolia Petroleum Co. prices.

Column 6—Midwest Refining Co., effective April 11, 1932.

Column 7—The Texas Company, effective April 1, 1932; Magnolia Petroleum Co., effective April 6, 1932; Standard Oil Co. of Louisiana, Louisiana Oil Refining Co., Stanolind Oil & Gas Co. (in Pine Island and Pleasant Hill and in Marion County, Texas) and Gulf Refining Co., effective April 11, 1932.

Column 8—The Texas Company, effective April 1, 1932; Sun Oil Co., April 1, 1932; Humble Oil & Refining Co., effective April 11, 1932; Gulf Pipe Line Co., effective April 11, 1932. Gulf's gravity scale ends with a top of 35 and above at 91 cents. Humble Oil & Refining Co., effective July 18, 1932, posted following prices for Conroe crude: 35-35.9 degrees, 90 cents; 36-36.9 degrees, 92 cents; 37-37.9 degrees, 94 cents; 38-38.9 degrees, 96 cents; 39-39.9 degrees, 98 cents; 40 and above, $1.

Column 9—Magnolia Petroleum Co., effective April 6, 1932.

Column 10—Magnolia Petroleum Co., effective April 6, 1932.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

July 19, 1932

STANDARD OIL CO. (INDIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Chicago	17.1	17.1	4.0	10.0
Decatur, Ill.	17.6	17.6	4.0	10.1
E. St. Louis	16.9	16.9	4.0	9.3
Joliet	17.6	17.6	4.0	10.1
Peoria	17.6	17.6	4.0	10.1
Quincy	17.4	17.4	4.0	9.9
Davenport, Ia.	17.7	17.7	4.0	10.4
Des Moines	17.7	17.7	4.0	10.4
Keokuk	17.7	17.7	4.0	10.4
Sioux City	17.3	17.3	4.0	10.0
Duluth, Minn.	18.7	18.7	4.0	11.0
Mankato	18.3	18.3	4.0	9.7
Minneapolis	18.4	18.4	4.0	11.0
LaCrosse, Wis.	19.4	19.4	5.0	11.1
Milwaukee	18.3	18.3	5.0	10.0
Madison	18.5	18.5	5.0	10.2
Detroit, Mich.	13.6	13.6	4.0	10.6
Grand Rapids	17.5	17.5	4.0	10.3
Saginaw	16.6	16.6	4.0	10.6
Evansville, Ind.	18.2	18.2	5.0	9.9
Indianapolis	18.4	18.4	5.0	10.1
South Bend	18.7	18.7	5.0	10.4
Fargo, N. D.	20.1	20.1	4.0	13.0
Huron, S. D.	19.5	19.5	5.0	11.8
Sioux Falls	19.0	12.0	5.0	11.5
K. C., Mo.	17.1	17.1	4.0	8.7
Springfield*	17.1	17.1	4.0	8.0
St. Louis*	16.6	16.6	4.0	9.4
St. Joseph	16.7	16.7	4.0	7.5
Wichita, Kans.	15.9	15.9	4.0	7.0
Bartlesville, Ok.	16.5	18.0	5.0	9.0

*State tax 2 cents, remainder city tax.

A third grade of gasoline, "Stanolind Blue," is sold at all major points at a price 1½ cents or more below the price on the regular grade shown above.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 1 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

STANOLIND FURNACE OIL IN CHICAGO

Effective July 1, 1932, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 6 cents; No. 2 (30-34 stw. zero), 150 gallons or more, 5.50 cents; No. 3 (22-26 zero), 200 gallons or more 4.75 cents; No. 4 (12-16 zero), 400 gallons or more, 4 cents. Viscosity of No. 4, 90-115 at 100° F.

Fuel Oils

Chicago Oil Heat Institute Prices

Spot market prices on 250 gallons or over deliveries, and top prices on contracts, respectively: 35-40, 6 cents and 7½ cents; 32-36, 5½ cents and 7 cents; 28-30 4¾ and 6¼ cents; 24-26, 4¼ cents and 5¼ cents; 18-22, 4 cents and 5 cents. On deliveries of less than 250 gallons the spot price is one-half cent higher.

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlanta, Ga.*	23.0	23.0	7.0	11.0
Augusta	22.5	22.5	7.0	14.5
Macon	23.0	23.0	7.0	13.5
Savannah	21.0	21.0	7.0	13.5
Birm'ham, Ala.	21.0	21.0	7.0	11.0
Mobile	21.0	21.0	7.0	10.0
Montgomery	22.5	22.5	7.0	14.5
Jackson, Miss.	21.0	21.0	7.0	12.5
Vicksburg	20.5	20.5	7.0	10.5
Jack'ville, Fla.	20.0	20.0	8.0	13.5
Miami	23.0	23.0	8.0	13.5
Pensacola	22.5	22.5	8.0	13.5
Tampa	22.0	22.0	8.0	11.5
Lexington, Ky.	18.5	18.5	6.0	10.5
Covington	19.0	19.0	6.0	10.5
Louisville	18.0	18.0	6.0	10.5
Paducah	19.5	19.5	6.0	9.0

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 3 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fourth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax.

Effective April 2 price to dealers 2 cents under posted tank wagon price.

*An additional discount of 1 cent is offered to dealers effective October 6.

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Denver, Colo.	18.0	21.0	5.0	12.5
Pueblo	18.0	21.0	5.0	12.5
Grand Jctn.	20.0	23.0	5.0	14.5
Casper, Wyo.	17.0	20.0	5.0	10.0
Cheyenne	18.0	21.0	5.0	11.5
Butte, Mont.	20.0	23.0	6.0	17.0
Billings	23.0	26.0	6.0	15.5
Great Falls	23.0	26.0	6.0	17.0
Helena	22.0	25.0	6.0	17.0
Salt Lake, Utah	21.0	24.0	5.0	16.0
Albu'que, N. M.	18.0	21.0	*7.0	14.0
Boise, Idaho	23.5	26.5	6.0	18.0
Twin Falls	23.5	26.5	6.0	18.0

*One-cent city tax.

SOUTHWESTERN DISTRICT

Magnolia Petroleum Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Dallas, Tex.	14.5	17.0	5.0	10.0
Fort Worth	15.5	17.0	5.0	9.0
Houston	14.5	17.0	5.0	10.0
San Antonio	14.5	17.0	5.0	9.0
El Paso	14.5	18.0	5.0	12.0
Texarkana	18.5	18.5	5.0	†11.0
Muskogee, Ok.	14.5	17.0	5.0	8.0
Okla. City	14.5	17.0	5.0	8.0
Tulsa	14.5	17.0	5.0	8.0
Ft. Smith, Ark.*	16.0	16.0	7.0	†9.0
Little Rock	*18.0	*18.0	7.0	†11.0

One-cent rebate made from posted station prices to cash purchasers in Louisiana, Arkansas and Tennessee.

*Less 2½ cents to dealers. †Less 2 cents to dealers.

PENNSYLVANIA-DELAWARE AND PART OF NEW ENGLAND

Atlantic Refining Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Pittsburgh, Pa.	17.5	18.5	4.0	11.0
Philadelphia	16.5	17.5	4.0	11.0
Scranton	17.5	18.5	4.0	11.0
Allentown	17.5	18.5	4.0	11.0
Altoona	17.5	18.5	4.0	11.4
Erie	17.5	18.5	4.0	11.0
Dover, Del.	17.5	18.5	4.0	11.0
Wilmington	17.5	18.5	4.0	11.0
Springf'd, Mass.	17.5	18.5	4.0	8.0
Worcester	17.5	18.5	4.0	8.0
Boston	16.5	17.5	4.0	8.0
Providence, R.I.	14.5	15.5	3.0	9.0
Hartford, Conn.	16.5	17.5	3.0	8.0
New Haven	16.5	17.5	3.0	8.0

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Omaha	16.9	17.9	5.0	10.25
McCook	19.0	19.0	5.0	11.75
Norfolk	18.75	18.75	5.0	10.75
N. Platte	19.0	19.0	5.0	11.5
Scottsbluff	19.0	19.0	5.0	11.25

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
N. Orleans, La.	19.0	19.0	*7.0	†12.0
Baton Rouge	18.0	18.0	6.0	10.0
Alexandria	19.0	19.0	*7.0	10.0
Lafayette	19.0	19.0	*7.0	†10.0
Lake Charles	19.0	19.0	*7.0	†12.0
Shreveport	18.0	18.0	6.0	†12.0
Knoxville, Tenn.	22.0	22.0	8.0	13.5
Memphis	20.5	20.5	8.0	9.0
Chattanooga	22.0	22.0	8.0	13.5
Nashville	21.5	21.5	8.0	13.5
Bristol	22.5	22.5	8.0	14.0
Lt. Rock, Ark.	19.0	19.0	7.0	11.0

*Includes city tax of 1 cent. Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

†Kerosene prices in Louisiana include 1-cent tax except New Orleans where tax is 2 cents.

Two-cent discount off gasoline and kerosene tank wagon price to dealer and commercial accounts.

OHIO

Standard Oil Co. (Ohio)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Ohio points	18.0	18.5	5.0	*12.0

Dealers and commercial accounts 2 cents under tank wagon.

*Service station price 13 cents.

PACIFIC COAST TERRITORY

Standard Oil Co. of California*

	Gasoline			Kero.
	Tank truck†	Posted retail	Incl'ds tax of	tank wagon
Fresno	19.5	18.5	4.0	17.0
San Francisco	19.0	18.0	4.0	15.5
Los Angeles	18.5	17.5	4.0	15.5
Reno, Nev.	25.0	24.0	5.0	19.0
Portland, Ore.	21.0	20.0	5.0	16.5
Seattle, Wash.	22.0	21.0	6.0	16.5
Tacoma	22.0	21.0	6.0	16.5
Spokane	25.5	24.5	6.0	20.5
Phoenix, Ariz.	19.5	21.5	6.0	20.5

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

*Retail prices posted by Standard Stations, Inc., a subsidiary.

NAPHTHA

	Tank wagon	Tank car
Oleum spirits	10.7	6.22
V.M.P. naphtha	12.7	7.23
Cleaners' naphtha	15.2	9.23
Stanisol	15.2	9.23

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atl'tic City, N.J.	16.9	17.9	4.0	11.2
Newark	16.2	17.2	4.0	8.5
Annapolis, Md.	18.5	19.5	5.0	10.0
Baltimore	17.9	18.9	5.0	7.0
Cumberland	19.4	20.4	5.0	11.7
Wash'g'n, D. C.	16.4	17.4	3.0	10.0
Danville, Va.	20.6	21.6	6.0	11.9
Norfolk	19.0	20.0	6.0	10.3
Petersburg	20.1	21.1	6.0	11.4
Richmond	19.4	20.4	6.0	10.7
Roanoke	20.6	21.6	6.0	11.9
Charles'n, W.Va.	19.3	20.3	5.0	11.6
Parkersburg	17.9	18.9	5.0	10.2
Wheeling	18.9	19.9	5.0	11.2
Charlotte, N. C.	22.2	23.2	7.0	13.5
Hickory	22.4	23.4	7.0	13.7
Mt. Airy	22.5	23.5	7.0	12.8
Raleigh	22.0	23.0	7.0	12.3
Salisbury	22.2	23.2	7.0	12.6
Charleston, S.C.	20.0	21.0	7.0	10.3
Columbia	21.9	22.9	7.0	12.2
Spartanburg	22.2	23.2	7.0	12.5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and States of Maryland and New Jersey, where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Prices shown above are for standard gasoline.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Albany, N. Y.	17.0	18.0	4.0	9.0
New York	14.5	14.5	4.0	9.5
Buffalo	17.5	18.5	4.0	9.0
Rochester	17.5	18.5	4.0	9.0
Syracuse	17.5	18.5	4.0	9.5
Boston, Mass.	14.5	15.5	4.0	8.0
Augusta, Me.	18.0	19.0	4.0	9.0
Manch'tr, N. H.	17.5	18.5	5.0	8.0
Burlington, Vt.	18.5	19.5	5.0	8.5

TANK WAGON CHANGES

Standard Oil Co. (Kentucky), effective July 9, reduced gasoline tank wagon and service station prices 1 cent at Montgomery, Ala.; effective July 3, company reduced gasoline tank wagon and service station prices 1 cent at Pensacola, Fla.

CRUDE OIL PRICE CHANGES

Effective July 18 the Humble Oil & Refining Co. posted prices in the Conroe Field in Montgomery County, Texas, as follows: 35-35.9 degrees 90 cents, with 2 cents added for each degree upward to 40 degrees and over at $1.

Effective July 13, the Pure Oil Co. increased the price of Midland, Mich., crude 10 cents, or to 85 cents per barrel.

Effective July 14, the Naphsol Refining Co. put Muskegon, Mich., crude back on a Mid-Continent gravity basis. The Old Dutch Refining Co. on June 30 posted 95 cents for Muskegon crude.

On July 15 the Ohio Oil Co. announced that the official posting on Grass Creek crude was $1.10 per barrel; Elk Basin $1.10, and Rock Creek 90 cents, effective June 1. The fields are in Wyoming.

Crude Oil Prices

(Continued from Preceding Page)

Co. ‡Humble Oil & Refining Co. ‖The Texas Company. †Yount Lee Pipe Line Co.

NORTH LOUISIANA AND ARKANSAS

Smackover, Ark. (all grades)	$ .45
Urania, La. (Apr. 12, 1932)	.40
East El Dorado, Ark. (Apr. 6, 1932)	.45
Stephens, Ark., below 29° (Apr. 12, 1932)	.61
Stephens, Ark., 29° and above (Apr. 12, 1932)	.64
Other fields	See gravity table

Note—Smackover, all grades, The Texas Company, April 1, 1932; Magnolia Petroleum Co., April 6, 1932; Standard Oil Co. of Louisiana, Gulf Refining Co. and Louisiana Oil Refining Co., April 11, 1932. Urania posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co.; East El Dorado by Magnolia Petroleum Co., effective April 6, 1932; by Gulf Refining Co., effective April 11, 1932; Stephens, Ark., by Louisiana Oil Refining Co. and Atlantic Oil Producing Co.

SOUTH CENTRAL AND SOUTHWEST TEXAS

Darst Creek (Apr. 1, 1932)*	$ .75
Luling (Apr. 1, 1932)*	.64
Mirando (Apr. 1, 1932)*	.90
Pettus (Apr. 11, 1932)‡	1.09
Salt Flat (Apr. 11, 1932)‡	.75
Thrall‖	
Lytton Springs (Lockhart) (Apr. 1, 1932)*	.94
Dobrowolski¶	
Same as Mid-Continent gravity scale up to and including 38-38.9°	
Somerset†	
Same as Mid-Continent gravity scale up to and including 38-38.9°	

*Magnolia Petroleum Co., The Texas Company, Humble Oil & Refining Co. posted 50 cents for Mirando, April 11. ‖Thrall prices same as North Central Texas less 19½ cents per cwt. freight. ¶Grayburg Oil & Refining Co., Pioneer Oil & Refining Co. and Texas Petroleum Products. ‖Pioneer Oil & Refining Co. ‡Humble Oil & Refining Co.

MIDDLE WESTERN STATES

Ohio Oil Co.

(Effective April 11, 1932)

Lima	$1.15
Wooster	1.35
Illinois	1.10
Indiana	.75
Princeton	1.10
Plymouth	Shut in
Western Kentucky	1.00
Midland, Mich. (July 13, 1932)*	.85
Muskegon (July 14, 1932)†	
	Mid-Continent gravity scale
Muskegon (June 30, 1932)‡	.95
Somerset, Ky. (Apr. 25, 1932)	.85
Hart County, Ky. (June 10, 1932)‖	1.00

*Posted by Pure Oil Co. Old Dutch Refining Co. pays 20 cents per barrel over Pure Oil Co.'s posted price. †Naph-Sal Refining Co. ‡Old Dutch Refining Co. ‖Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

MEXICO

Panuco*	$ .47

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

CANADA

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.56
Crude oil 45-45.9	2.18
Crude oil 50 and above	2.80
Crude naphtha	3.33
Discolored naphtha	3.08

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

NEWS FOR SALES DEPARTMENTS

Sellers Not Sure of Tax Positions of Many Products

NEW YORK, July 18.—Notwithstanding the fact that the new revenue law, carrying varying taxes on petroleum products, has been in effect for almost a month, there are still many problems confronting refiners which lack official clarification.

Of outstanding interest, to East Coast and Gulf refiners, is the status of Diesel oil, which is in some doubt. The new law, if applied literally, makes the motor fuel excise tax of 1 cent per gallon applicable to all gasoline, benzene and all other liquids, the chief use of which is as a fuel for the propulsion of motor vehicles, motor boats, or airplanes. This literally includes motor boats and all Diesel-propelled vessels.

There are many large transatlantic vessels which bunker with Diesel oil exclusively. One of the major sellers at the Gulf has been adding 1 cent per gallon on all sales to cover the excise tax, while its parent company, selling Diesel oil at East Coast ports, has not been including any tax. Major companies in general here are proceeding on the same theory, that Diesel fuel oil is not intended to be taxed as a motor fuel. While the large marine consumers of Diesel oil are classed by Lloyds as "motor vessels," the legal departments of major companies contend that they do not fall within the category of motor boats. An official ruling on this question, however, is still being awaited.

Definite rulings on solvent benzene are also being awaited with interest. Benzene sold as a motor fuel is taxable, but benzene sold for use in the manufacture of rubber products such as tires and tubes which are taxed, is nontaxable, in the latter case, the producer is required to obtain from the manufacturer using the benzene a certificate of use to justify the exemption from the tax. Benzene used in the manufacture of rubber goods not carrying an excise tax, such as hose, footwear, etc., is taxable and the tax must be paid by the producer.

The taxability of petrolatum is also somewhat involved, but has been clarified somewhat by rulings from the Bureau of Internal Revenue. In general, petrolatum is not taxable as a toilet preparation unless it is perfumed or sold purely as a cosmetic. If petrolatum is used as a straight lubricant, however, it is taxable, with the refiner paying the tax. If the refiner sells petrolatum to compounders who use it in a blend of lubricants, the refiner may escape paying the tax by securing from the purchaser a certificate of use, showing that the petrolatum is to be used in the manufacture of products on which the tax will be paid.

CHILE REDUCES IMPORTS

NEW YORK, July 15.—The Chilean government has reduced the import duty on gasoline in bulk by 50 per cent, the new rate of duty being 20 pesos per 100 liters. The import duty on gasoline in containers has likewise been halved, the new rate being 30 pesos per 100 kilos gross. There is also a surtax of 0.10 peso per 100 gross kilos or fraction thereof.

The present gasoline shortage in Chile is so acute, it is reported, that motoring has been sharply curtailed, and the Chilean government, which has been considering a "swap" of Chilean nitrate for Russian gasoline is now endeavoring to make an arrangement of this kind with the United States.

Oklahoma Tax Payments Cost Owners an Average of .6 Cent Per Mile

By A. R. LOSH
Anderson-Prichard Oil Corp.*

The public general does not recognize the combination of gasoline taxes, state and Federal, automobile license fees, tire taxes and lub oil taxes, as constituting a road toll on the road user, but in effect this is what the combined taxes and fees amount to. For every mile you drive your car over the highways, you are paying a toll to the Federal and state government. At the present time these combined taxes in Oklahoma amount to approximately six-tenths of a cent per car a mile. Taking an average condition, these fees and taxes are approximately as follows:

State and Federal gasoline tax, 5 cents per gallon. Using the figure 14 miles per gallon, this tax amounts to .357 cent per car a mile.

Lubricating oil tax, 1 cent per quart or .01 cent per car mile.

Tire and tube tax of approximately 11 per cent amounts to .025 cent per car a mile.

The state automobile tax will average $12 per car. Taking an average yearly mileage of 6,000 miles, this costs .20 cent per car a mile.

Thus the total cost per car a mile is .592 cent.

Another thing that is not generally understood is the fact that the road user is now paying practically all highway costs in Oklahoma. Very few counties levy an ad valorem tax for road construction and maintenance purposes. The State distributes a large part of the fees it collects to the counties and with these funds the county authorities maintain the county roads. There is also a distribution of this tax back to cities, which they place in their general revenue. While these various fees are disguised under the terms of gasoline tax, sales tax, license fees, etc., they are, as a matter of fact, tolls charged by our government for the use of the highways. If you take a 50-mile Sunday afternoon drive, just charge yourself 30 cents toll for the trip, besides the cost of operating your car.

Harry V. Kahle, executive director of the Oklahoma Tax Economy Association in the Oklahoman of July 14 proposed to divert a substantial portion of the state highway fund to general tax purposes. While the immediate proposal is to pay off the state deficit of approximately $9,000,000, in effect it means robbing the State Highway Department for general tax purposes. Does anyone believe that if gasoline taxes are once diverted for general tax purposes, it will ever be returned for road purposes? We can expect a diversion of this kind, once placed into effect, to be continued.

This conclusion is forced upon us by the facts:

1. The State income is decreasing while the State expense is increasing.

2. If road funds are diverted to general tax purposes, there will be no need to reduce government costs. With this increase to the general revenue, you may expect general expenses to keep on increasing.

These public collected tolls, according to Mr. Kohle's article, pass into the state highway fund approximately $9,140,000 per year. If, as suggested, we take $3,800,000 from this fund and place it in the general tax fund, it means either that we are robbing the roads of funds needed for their upkeep, or that we are collecting more tolls than we need for the road upkeep. If our highway system is so efficiently operated that we can take $3,800,000 a year from the highway income and apply it to other purposes, it is high time we cut the tolls. The sum proposed for diversion to general tax purposes is 42 per cent of state highway income. If our income is 42 per cent more than the cost of operating the roads, we are collecting too high a toll and it is time to reduce it.

*Mr. Losh formerly was chief engineer of the Oklahoma Highway Commission.

GOVERNMENT AWARDS PETROLEUM ORDERS

NEW YORK, July 16.—Awarding of a number of minor government contracts for refined petroleum products was reported during the past week, as follows:

To American Petroleum Co., Chicago, by the U. S. Engineer at Rock Island, Ill., 8,000 gallons of gasoline, $850, f.o.b. Ranger, Tex. To Standard Oil Co. of Indiana, 750 gallons of aircraft engine lubricating oil, grade 120, for the Air Corps, Wright Field, Ohio, at 65 cents per gallon, serviced.

To Swan Finch Oil Corp., 600 gallons of engine oil, 20.8 cents per gallon, for delivery to Lighthouse Bureau, Staten Island, N. Y. Hudson Oil Co. received an order for 5,000 gallons of engine oil, delivery to the same point, at 25⅝ cents per gallon.

To R. M. Hollingshead Co., Camden, N. J., for delivery to the Army Air Corps, Wright Field, Ohio, 1,175 pounds of soft lubricating grease, at 19 cents per pound; 4,400 pounds of medium soft lubricating grease, at 19¼ cents; 1,750 pounds of medium hard lubricating grease, 19½ cents, and 1,175 pounds of hard lubricating grease, 19¾ cents; less 5 per cent for all and 2 per cent 10 days.

The U. S. Engineer at Montgomery, Ala., will open bids July 15 for 60,000 bbls. of fuel oil. The Militia Bureau at Concord, N. H., will open bids July 22 for 12,000 gallons of motor gasoline. The Militia Bureau at Lincoln, Neb., will open bids July 18 for gasoline, grease, kerosene and lubricating oils.

EASTERN DEMAND FOR GASOLINE INCREASES

NEW YORK, July 16.—While gasoline demand for the country as a whole is falling off this year, consumption in Atlantic seaboard territory has held up exceptionally well and indications are that the percentage drop in this area will be slight.

Gasoline consumption for the first four months of 1932, as indicated by tax returns for four of the principal eastern consuming states—New York, Pennsylvania, New Jersey and Massachusetts—recorded an increase of 5.1 per cent over comparable 1931 figures, as follows:

	First four months 1932 (gals.)	First four months 1931 (gals.)
New York	447,523,000	423,199,000
Pennsylvania	306,275,000	282,384,000
New Jersey	207,502,000	199,423,000
Massachusetts	154,419,000	150,579,000
Total	1,114,719,000	1,060,585,000

Associated Oil To Expand All Phases Company Operations

NEW YORK, July 16.—Associated Oil Co. is completing plans to expand both its refining and marketing operations on the Pacific Coast, it is learned at Tide Water-Associated Oil Co. headquarters here. Contracts have already been awarded to the Foster Wheeler Corp. for the construction of two new units at the Associated refinery at Avon, Calif.; one a 2,000-bbl. vacuum distillation unit, and the other a gasoline recovery system.

The largest advertising campaign of the last few years will be launched by the company along the Pacific Coast region and the Hawaiian Islands. The new sales effort will be initiated with the introduction of the Associated Flying A, aero-type gasoline, recently developed by the California company to compete with the several high-octane, nonpremium gasolines being sold by other major oil companies in that territory.

Associated has also announced expansion of its service station facilities to include the merchandising of nationally known brands of tires and a complete tire and repair service. Approximately 500 of the company's stations throughout the Pacific Coast have inaugurated the tire sales and service as the result of contracts with the B. F. Goodrich Rubber Co. and the Firestone Tire & Rubber Co.

LIST BUNKERING STATIONS

NEW YORK, July 15.—The U. S. Shipping Board has just issued a revised and enlarged directory of foreign bunkering stations. The new publication lists data on coal and oil fueling facilities at over 300 foreign ports, including names and code addresses of station operators, types of fuel carried, normal supply maintained, storage capacity of bunkering stations, methods of delivery, etc., depths and dimensions of water available, and information on charges and dues, pilotting, towage, etc.

SIGN EXPLAINS HIGH TAXES ON GASOLINES

W. L. Cooper, who operates a filling station in Memphis, Tenn., has a unique method of calling the attention of his customers to the large fraction of the gasoline price going to tax collectors. He has erected a sign at his station giving the following information:

Help!

Gasoline	5
Horton	7
Hoover	1
Freight	2
Me	3
Total	18

Drive In

More explicitly, the tank car is loaded with gasoline at 5 cents a gallon. The State of Tennessee takes 7 cents, the Federal Government 1 cent, the railroads 2 cents and the station management 3 cents. The biggest middleman rakeoff, it will be seen, goes to governmental demands. Mr. Cooper isn't arguing; he is just telling the trade.

NEWS FOR PETROLEUM REFINERS

Tax Evasion Factor in Lowering Prices of Canadian Fuels

CHATHAM, Ontario, July 16.—Action of a number of the major Canadian gasoline producers on July 1, at the outset of greatest selling period of the year, in reducing gasoline prices by an average of 1 cent a gallon in many parts of Ontario and Quebec, represents the first departure from the old established policy of keeping a close relationship between crude oil prices in the Mid-Continent Field and gasoline prices charged the consumer in Canada. The step is regarded in many quarters as designed to counteract a growing tendency to evade increased provincial gasoline taxes as well as the dumping duties imposed by the federal government on imported gasoline.

Up to the present year "gas tax racketeering" in Canada was practically negligible, outside a small amount in Alberta and Saskatchewan due to the proximity of the Turner Valley Field with its direct sales of unrefined naphtha at the well head. Evidence at the Federal gasoline probe earlier in the year indicated that there was practically no attempt at evasion of the provincial gasoline tax; and it was assumed that this condition would continue.

Earlier in the year Saskatchewan and Alberta tightened up their gasoline tax machinery with a view to preventing evasion. So far the racketeering seems to be only in its incipient stages; and it is probable that drastic measures will be taken to stamp it out. It is possible, too, that reductions in gasoline tax revenue as compared with previous years in some provinces are due to decreased motoring activities rather than evasion.

Evading Gasoline Tax

Another phase of the situation relates to the import field. The Federal tariff makes provision for the fixing of gasoline prices for the various United States producing areas from time to time and the imposition of a dumping duty where gasoline is imported at less than the fixed price. Thus, if the fixed price in a certain area is 8 cents a gallon, imports brought in at that price pay only the regular 2.5 cents a gallon tariff. If, however, the gasoline is bought at 6.5 cents, the importer is called on to pay not merely the 2.5 cents tariff but the difference of 1.5 cents between the fixed price and the actual import price.

Where, however, a United States producer owns a Canadian distributing subsidiary, it is quite conceivable that gasoline wholesaling in a certain field at a distress price of 6.5 cents may be billed to the Canadian importer at 8 cents. By this device, the Canadian subsidiary does not make anything; but the parent company in the United States makes 1.5 cents a gallon additional profit. At the time of the Federal gasoline probe last spring, the possibility of some such procedure was mooted, and the conclusion was that it had not been adopted to any appreciable extent.

Since then, however, it is understood that the Canadian customs authorities have been giving close attention to this phase of gasoline importing, to see if some measure cannot be devised to prevent this practical negativing of the antidumping measures by United States companies which wholly own their Canadian subsidiaries. To what extent this sort of evasion is being carried on, and to what extent United States exporters and Canadian importers with no fiscal connections are conniving along similar lines is at present uncertain.

Active Bidding For Richfield Company and Rio Grande by Major Units

The acceptance of offers for the Richfield Oil Co. and the Rio Grande Oil Co. made by major oil interests in the near future was indicated in financial reports of the past week. The two companies are independent integrated companies with operations centering in California and other West Coast states.

Three companies are reported to be bidding for the properties of the Richfield Oil Co. of California, which for the past year have been operated by a receiver. The Standard Oil Co. of California is said to have made a tentative offer to the committees of bondholders and creditors. The Standard company proposes to give the creditors $21,000,000 in income bonds of the reorganized Richfield company in exchange for their bonds and claims on the company. It is understood that in addition the company is willing to supply the Richfield refineries with crude oil on credit.

This offer has caused the Consolidated Oil Corp. to revise its offer for the Richfield properties made several weeks ago. The new offer includes 180,000 shares of common stock in addition to the original offer of Consolidated preferred, making a total figure of around $20,000,000. The original offer made by Harry Sinclair, head of Consolidated, was $18,000,000 of preferred stock of no par value bearing 6 per cent interest.

Although no definite offer has been announced, it is understood that the Shell-Union Oil Co. (Dutch-Shell) has been making a check of the Richfield properties and will shortly enter the list of companies anxious to secure control of the California unit. The Standard and Shell companies would consolidate the Richfield company with their properties in California, while the Consolidated is desirous of making the Richfield unit the nucleus for expansion in West Coast states.

The Consolidated corporation also is again negotiating for the properties of the Rio Grande Oil Co. with headquarters in Los Angeles. An offer of 495,000 shares of Consolidated common is reported to have been made in exchange for 1,235,823 shares of the Rio Grande common. The Rio Grande company is an important producing company in California with a 10,000-bbl. refinery and ocean terminal near Los Angeles. In addition, the company has refineries in Arizona and Texas. The company has 42 bulk stations in New Mexico, Arizona, Texas and California with approximately 200 retail outlets. It is understood that the Consolidated corporation wishes to acquire both the Rio Grande and Richfield companies if possible.

Dickey Company to Build 3,000-Barrel Plant at McPherson

The Dickey Oil Co., independent producing company of Wichita, Kans., will start work this week on the construction of a refinery to be located at McPherson, Kans. The plant, which will be of the combination skimming and cracking type, will have a capacity of 3,000 bbls. daily. The company has completed arrangements for all employes who will be needed in the construction of the plant.

The crude oil will be obtained by pipe line from producing properties located in the McPherson Pool, 7 miles from the plant. The latter is to be located in the northeast corner of McPherson on a site provided by the local chamber of commerce. The site connects to the Santa Fe and Rock Island railroads. The plant will be designed and built by the company with Roy Miller of Wichita, Kans., in charge of construction. It is expected that the plant will be in operation within 90 days.

Storage facilities for crude oil are to be furnished immediately at the plant site with the erection of two 55,000-bbl. tanks. All the details in connection with the organization of the company which will operate the plant have not been completed. Ellis Slack, formerly of Tulsa, will be vice president of the company in charge of marketing. George Dickey is president and active head of the company.

TO OPERATE TEXAS PLANT

FORT WORTH, Tex., July 16.—The Danciger Oil & Refining Co., which owns the Petroleum Refractionating Corp. refinery No. 2 south of Longview, is testing that refinery with intentions of starting operations at once. Trucks and tank cars are being used to transport oil to the plant in order to save laying of gathering lines in the field. The plant is one of the most up to date in the field, but has never been in operation, except to test. It has been completed for almost a year.

BUYS RANGER CRUDE

The Sinclair Prairie Oil Marketing Co. has sold approximately 1,500,000 bbls. of Ranger district crude in stock to the Stanolind Crude Oil Purchasing Co. which will move it through the Stanolind Pipe Line Co.'s main line to Oklahoma and Indiana. The oil has stood in tanks in Eastland County for several years. However, its lub oil content is high and valuable, which was perhaps the reason for the purchase.

COMPLETING PIPE LINE

The Illinois Pipe Line Co. has started construction of a 6-inch pipe line, 7 miles long, north of Fort Worth, to connect with its main line from the Ranger district to a refinery at Fort Worth, belonging to the Marathon Oil Co. The line is expected to be finished within five weeks. Both companies are subsidiaries of the Ohio Oil Co.

COMMUTE REFINERY TAX

Under an agreement reached by the Shell Oil Co. of Canada and Montreal East, Ontario, the latter is to commute for 10 years 75 per cent of general municipal taxes on the $2,000,000 refinery which is to be constructed immediately by the Shell company. The agreement provides that a minimum of $10,000 in taxes must be paid annually by the company.

PLANTS IN JAPAN HAVE EIGHT CRACKING UNITS

Eight cracking plants, two of the Dubbs type, two of the Jenkins type and four of the Cross type, are operating in Japan, according to the Fuel Society of Japan. The total charging capacity is rated at approximately 3,000,000 bbls. annually and the annual production of gasoline is stated to be about 1,300,000 bbls.

The first cracking plant in Japan was put into operation in 1924 at the Tsumuri refinery of the Nippon Oil Co. after an extended investigation on a semi-commercial scale. The first plant was of the Dubbs type. The second plant was of the Cross type, put into operation at the Niigata refinery of the Nippon Oil Co. in 1926. The latest installation is the Cross type plant erected by the Mitsubishi Oil Co. in 1931 at its refinery in Tsurumi, a suburb of Tokyo. The following table lists the cracking plants in Japan:

Refineries, companies and systems—	No. of plants
Tsurumi, Nippon Oil Co., Dubbs	2
Niigata, Nippon Oil Co., Cross	1
Kudamatsu, Nippon Oil Co., Cross	1
Tokyo, Ogura Oil Co., Jenkins	2
Tsurumi, Mitsubishi Oil Co., Cross	1
Yokohama, Ogura Oil Co., Cross	1

STARLIGHT PLANT OPERATING

The Starlight Refining Co. is now operating a 500-bbl. skimming plant located at Breckenridge, Tex. George A. Sonricker is president of the company which is individually owned. Mr. Sonricker has been connected with Mid-Continent refinery operations for the past 15 years and built one of the first plants to be located in the North Texas area. A large part of the Breckenridge plant output will be distributed locally. Headquarters of the company are located at 801 East Walker Street, Breckenridge, Tex.

GRISWOLD OPERATING SHREVEPORT REFINERY

E. F. Griswold, who has been connected with Mid-Continent refinery operations for several years, has taken over the Dartois refinery, located at Shreveport, La. The plant has been converted into a skimming operation and will be operated under the name of the Cedar Grove Refining Co. The plant has a capacity of 750 bbls. daily.

A. F. Kelly is superintendent of the refinery. The Cedar Grove Co. is owned by Mr. Griswold.

TO CONTINUE OPERATION

SAN ANTONIO, Tex., July 16.—It was definitely decided here this week that the Grayburg Oil Co. will be permitted to continue the operation of its local refinery until May 1, 1933. Judge S. G. Tayloe of the ninety-fourth district court granted a motion to extend the time of operation which by previous court injunction was to have expired August 15.

Officials of the Grayburg company explained that it was impossible to remove the plant to another location at this time. They pointed out that a large number of men would be thrown out of work if the plant was closed down at this time. Residents near the plant who were responsible for the original injunction granted by the district court did not oppose the extension of time.

F. R. BAXTER RETIRES

On July 1, his seventy-fifth birthday, Florus R. Baxter retired after 51 years of service with the Vacuum Oil Co. For the past 42 years he was in charge of the testing laboratory and later all the laboratories of the company located at Rochester, N. Y. The laboratories recently were removed from Rochester, and Mr. Baxter was retired by the company effective the first of the month. He will continue to make his home in Rochester.

NATURAL GASOLINE MANUFACTURE

Low Vapor Pressure Grades Can Aid in Vapor Lock Problem

The Natural Gasser*

Vapor lock is a problem to be faced by the refiner who insists upon a vapor-recovery system that turns out an extremely volatile product to be blended with his straightrun and cracking plant products. Many refiners are meeting this vapor lock question by checking the excessive volatility of their motor fuel through the use of stable natural gasolines in blending with their crude distillate and cracking plant products.

Natural gasoline manufacturers already have their products under volatility control. By purchasing from some natural gasoline manufacturer, the refiner obtains a product which eliminates most chances for vapor lock. As a result, the refiner may use the stable natural gasoline freely. All he has to do is to blend it with the refinery materials.

This fact has caused many a refiner to consider carefully the economy of his straightrun gasoline, his pressure gasolines and the products of his vapor recovery system. Many refiners have come to the logical conclusion that vapor recovery gasoline is one of the largest sources of excessive volatility. Many of them are turning to the natural gasoline manufacturer for stabilized products as a wiser move than the installation of expensive vapor recovery systems.

Refiners who use products of the natural gasoline makers are wise. Stabilization was worked out and applied to the natural gasoline business several years ago. The natural gasoline manufacturer today sells this stabilized product at a low price, in most instances much below the figure at which the refiner could make it.

Evidence of Vapor Lock

Evidences of vapor lock are as follows:

1. Failure of the automobile engine to idle after it has been allowed to run at high speed when the atmospheric temperature is high.

2. Uneven running of the engine during acceleration.

3. Intermittent operation or jumping of the engine at high speed.

4. Complete stopping of the engine.

With the refiner needing more natural gasoline than ever to blend up his straightrun product, due to closer fractionation in refinery practice and to octane number requirements, in addition to the hazards and expensiveness of refinery made natural gasoline, most refiners could well afford to buy a larger amount of natural gasoline from manufacturers at present prices.

By this practice they would avoid vapor lock; they would avoid expensive refinery vapor recovery systems; they could get maximum fractionation without sacrificing the quality of their motor fuel; and, as a result, their net profits would be increased.

With the leaders of the industry announcing a new slogan, "Quit Selling at a Loss," economists are expected to point the way back to profits for the refiners through the use of more natural gasoline. Popular approval of improved products as well as actual savings in procedure of refining operations is expected to aid refiners in the decision to buy an adequate amount of natural gasoline.

*Warren Petroleum Co.

Government Report Shows Decrease in Plants With Increased Capacity

By G. R. HOPKINS and E. M. SEELEY
U. S. Bureau of Mines

The number of natural gasoline plants has shown a consistent decline in recent years, but the total capacity has increased steadily. The number of completed plants, as determined by a survey as of January 1 amounted to 959. Previous surveys of January 1, 1928 and 1930 showed 1,155 and 1,035 plants, respectively. Of the total plants on January 1, 859 were operating and 100 were shut down, compared with 999 operating and 36 shut down on January 1, 1930. The material gain in the number of inoperative plants in the last two years was probably due to the severe decline in prices in 1931.

The low prices of 1931, which were approximately 40 per cent below 1930, made it virtually impossible for the majority of the independent plants, or plants not owned by a large integrated company, to operate at a profit. Accordingly, the majority of the plants removed from the list in 1930 and 1931 were owned by companies which were engaged solely in the manufacture of natural gasoline.

The total daily capacity of the plants on January 1 amounted to 11,387,000 gallons, an increase of 871,000 gallons, or 8 per cent, in the two years 1930 and 1931. That the total capacity of the plants has increased while the number of plants has declined is due to the fact that nearly all the plants constructed in the last five years have been large plants.

During 1931 the average total daily capacity of the operating plants was approximately 10,600,000 gallons, while the average daily production amounted to 4,944,000 gallons. This indicates that the plants operated during 1931 at 47 per cent of their capacity, compared with 58 per cent in 1930 and 61 per cent in 1929.

Oklahoma First

Although more plants have been dismantled in Oklahoma in recent years than in any other State, it continues to rank first in number of plants. On January 1, there were 238 plants in Oklahoma, compared with 145 plants in California, which ranked second. In total capacity the reverse is true; that is, California, with a total daily capacity of 4,057,000 gallons, ranks first, and Oklahoma, with a total daily capacity of 3,189,000 gallons is second.

There are three common methods of extracting natural gasoline: Namely, absorption, compression and charcoal. The absorption method has shown a rapid growth in relative importance in recent years, although in 1930 and 1931 this growth was much less pronounced than formerly. The compression method has declined steadily in relative importance, although the total daily capacity of the plants using this process has shown only a small decrease in the last four years. The charcoal method, the most recently developed of the three processes, has also declined in relative importance; only 17 of these plants with a total daily capacity of 122,000 gallons were reported on January 1.

The largest plant listed is that of the Shell Oil Co. of California at Long Beach, Calif. This plant had a rated capacity of 220,000 gallons daily. The largest plant east of California was that of the Sinclair Oil & Gas Co. at Seminole. There were several plants of less than 10 gallons daily capacity in Pennsylvania. The following table summarizes the government data:

RECAPITULATION BY STATES JANUARY 1, 1932

State—	Number of plants: Operating	S.D.	Ttl.	Absorption*	Compression	Combination	Charcoal	Capacity per day, thousands of gallons: Operating	S.D.	Ttl.	Absorption*	Compression	Combination	Charcoal
Arkansas	13	1	14	8	2	2	2	88	15	103	61	8	25	9
California	113	32	145	125	2	15	0	3,784	273	4,057	3,758	13	286	0
Colorado	2	1	3	3	0	0	0	6	6	12	12	0	0	0
Illinois	79	2	81	0	81	0	0	58	1	59	0	59	0	0
Indiana	1	0	1	0	1	0	0	(†)	0	(†)	0	(†)	0	0
Kansas	17	3	20	16	4	0	0	183	20	203	188	15	0	0
Kentucky	7	0	7	4	2	0	1	47	0	47	44	1	0	2
Louisiana	38	12	50	33	10	4	3	410	67	477	413	37	18	9
New Mexico	2	0	2	2	0	0	0	80	0	80	80	0	0	0
New York	1	2	3	1	1	1	0	(†)	2	2	2	(†)	(†)	0
Ohio	26	1	27	7	19	0	1	59	(†)	59	50	3	0	6
Oklahoma	216	22	238	128	83	27	0	2,955	234	3,189	2,254	616	319	0
Pennsylvania‡	119	13	132	24	106	0	2	109	31	140	96	38	0	6
Texas	121	7	128	86	26	15	1	2,354	57	2,411	1,897	232	279	3
West Virginia	96	4	100	36	59	4	7	364	24	388	224	59	18	87
Wyoming	8	0	8	6	2	0	0	160	0	160	56	104	0	0
Total	859	100	959	476	398	68	17	10,657	730	11,387	9,135	1,185	945	122

*Alaska has one absorption plant, operating, of 130 gallons capacity. †Less than 500. ‡Vacuum and gas pumps counted under compression.

TO INSTALL PROPANE PLANT AT SNOW HILL

The Eastern Shore Gas Co. of Snow Hill, Md., is making preparations to build a propane gas plant at Cape Charles, Va. Work will start in the near future.

The Eastern company at present has propane gas plants in operation at Snow Hill, Md., and Chincoteague, Va. Farmers are served with tank gas from these points. The company also operates butane gas plants at Pocomoke, Md., Ocean City, Md., and Berlin, Md. A 7-mile pipe line connects Berlin to Ocean City.

BUREAU ISSUES FINAL REPORT COVERING 1931

The output of natural gasoline in 1931 totaled 1,831,900,000 gallons, a decrease of 17 per cent from 1930 according to a final summary of the U. S. Bureau of Mines released during the past week. The natural gasoline report is part of a general summary covering petroleum, petroleum products and natural gasolines.

The report shows that except for Kettleman Hills and Oklahoma City, all the major districts produced less natural gasoline in 1931. This general decline resulted primarily from the severe curtailment in drilling with the only active area, East Texas, being notable deficient as to gas. Total stocks of natural gasoline, the major portion of which is held at refineries, declined from 3,100,000 bbls. on January 1 to 2,818,000 bbls. on December 31.

Air Corps of Army Awards Contracts for Aviation Fuels

NEW YORK, July 16.—The Army Air Corps has awarded a number of contracts, totaling more than 5,000,000 gallons, for fighting grade aviation gasoline for delivery to various army aviation camps throughout the United States. Some of the gasolines are stabilized natural gasolines or heavy blends of natural gasoline and refinery gasolines. Following are the contracts awarded:

Standard Oil Co. of California, 14,000 gallons for Rockwell Field, San Francisco, at 5.75 cents per gallon, delivered; 6,000 gallons for Lordsburg Airdrome, California, at 13.75 cents per gallon, delivered.

Standard Oil Co. of New Jersey, 35,000 gallons for Boston airport, at 13.9 cents per gallon; 8,000 gallons for Burgess Field, at 15 cents per gallon; and 8,000 gallons for Pittsburgh, at 15 cents, all delivered.

Phillips Petroleum Co., 24,000 gallons for Bowman Field, at 15.375 cents per gallon; 24,000 gallons for Richards Field, at 15.375 cents per gallon; 7,000 gallons for Fairfield, at 4.2 cents per gallon; 364,000 gallons for Kelly Field, at 4.2 cents per gallon; 63,000 gallons for San Antonio, at 4.2 cents per gallon; 112,000 gallons for Chanute Field, at 8.875 cents per gallon, f.o.b. refinery; 35,000 gallons for Fort Leavenworth, 35,000 gallons for Hatbox Field, 28,000 gallons for Marshall, 7,000 gallons for Offutt, 28,000 gallons for Post, 21,000 gallons for Schoen, and 70,000 gallons for Scott Field, all at 8.875 cents per gallon, f.o.b. refinery.

Shell Petroleum Corp., 364,000 gallons for Randolph Field at 6.9 cents per gallon; 140,000 gallons for Barksdale Field, at 9.9 cents per gallon; 77,000 gallons for Brooks Field, at 9.966 cents per gallon; 147,000 gallons for Fort Crockett, at 8.976 cents per gallon; 70,000 gallons for Hensley Field at 10.098 cents per gallon; 245,000 gallons for Kelly Field, at 9.966 cents per gallon; and 301,000 gallons for Randolph Field at 9.9 cents per gallon, all f.o.b. destination.

Richfield Oil Corp. of New York, 7,000 gallons for Langley Field, at 8.19 cents per gallon; 868,000 gallons for Bolling, Langley, Middletown, Mitchell, Phillips and Pope Fields, at 9.5 cents per gallon; all f.o.b. refinery. Humble Oil & Refining Co., 3,000 gallons for Fort Clark, at 23.37 cents per gallon; 10,000 gallons for Dryden Airdrome, at 19.26 cents; 30,000 gallons for Laredo Airdrome, at 19.26 cents; 10,000 gallons for Marfa Airdrome, at 19.26 cents; 15,000 gallons for

(Continued on Page 31)

DEVIATION LIMITED BY ORDER AT CONROE

HOUSTON, Tex., July 18.—Rule 20 of the new Railroad Commission order for the Conroe Field, Montgomery County, effective July 1, provides that a deviation test or survey shall be made in each well. Points of survey shall not be spaced at intervals greater than 500 feet. The survey must be witnessed by a Railroad Commission agent, and a report of the complete survey in the form of affidavit shall be attached to the regular completion report form.

Maximum deviation shall not exceed 5° from the vertical when the well spacing is 20 acres or more. Maximum deviation shall not exceed 4° from the vertical where the well spacing is 10 acres and less than 20 acres per well. Maximum deviation shall not exceed 3° from the vertical where the well spacing is less than 10 acres per well.

ATLANTIC PIPE LINE TO GOVERNMENT WELLS

SAN ANTONIO, Tex., July 18.—Atlantic Pipe Line Co. is reported preparing to survey for a line from the Government Wells district in northern Duval County to Aransas Pass where the company has terminals and shipping facilities. Aransas Pass is about 80 to 90 miles almost due east of the Government Wells district. Humble has a line from the field to Benavides where it joins the Humble line from Laredo district to Aransas Pass and Magnolia's line from the Laredo district and thence to Beaumont passes through the Government Wells district.

RUSSIAN OIL EXPORTS INCREASING THIS YEAR

WASHINGTON, D. C., July 18.—The petroleum industry of Soviet Russia is showing an increase over last year in its export trade.

Russian shipments of petroleum products through Black Sea ports in May totaled 453,737 tons compared with 344,274 tons a year ago, according to a report received from Commercial Attache E. Gillespie, Istanbul, where the shipments were checked.

The report states that of the petroleum products exported in May, heavy oils and gasoline showed an increase compared with a year ago, and lubricating oils and kerosene a decline. Italy, France, Belgium, Spain, England and Egypt were the leading purchasers of these products and the six markets represent about 70 per cent of the total shipments. In the first five months of this year exports of petroleum products totaled 2,049,448 tons compared with 1,837,162 tons a year ago. —C.E.K.

TRINIDAD SHIPMENTS LESS

NEW YORK, July 16.—Exports of gasoline from Trinidad for the first three months of 1932 totaled 17,067,335 gallons, a drop of more than 1,500,000 gallons from the 18,642,585 gallons exported in the first quarter of 1931. Crude oil shipments were also lower, at 25,283,830 gallons, against 26,879,922 gallons, but fuel oil exports recorded a sharp increase, at 56,827,678 gallons, as compared with 42,400,180 gallons in the first three months of 1931.

HANOVER INCREASES OUTPUT

Production of crude petroleum in the Hanover fields of Germany totaled 18,040 tons in April, against a 1931 monthly average output of 14,793 tons. The principal producer was the Hanigsen-Obershagen-Nienhagen district with 9,615 tons, Wietze-Steinforde coming next with 4,553 tons, followed by Eddesse-Oelheim-Oberg with 3,872 tons.

MAGNETIC STORM

Tucson, Ariz., observatory of the U. S. Coast and Geodetic Survey report severe magnetic storm starting at 1 a. m. (C. S.T.) on the 16th and ending at 6 a. m. (C.S.T.) on the 17th. Their telegrams follow:

"Storm began sixteenth. Seven. Severe."

"Storm ended seventeenth. Twelve."

Late Fields

OKLAHOMA

Over the week two locations were made in the Oklahoma City Field, one being in the closely drilled north end of the field and the other in the extreme south end. Phillips Petroleum Co.'s No. 1 Roly, NW cor. SW SW NW, Section 2-11-3w, on Lot 25, Block 6, Armourdale Addition, is a location. Indian Territory Illuminating Oil Co.'s No. 1 Wisel, C E half SW SE SE, Section 26-11-3w, is a location in the southwest part of the field.

H. H. Taylor and others' No. 1 Bean, SW cor. NW, Section 36-7-4, Pottawatomie County, swabbed 380 bbls. of oil in 8½ hours from the Simpson dolomite at 4,219-25 feet. This well extends the production in the Sacred Heart area a mile to the east.

Harris & Brown have made location for No. 1 in the NE cor. SW NE, Section 28-5-6, Pontotoc County, in the Conservation Pool.

In the Holdenville area the Mid-Continent Petroleum Corp.'s No. 1 Jacobs, NW cor. NE SE, Section 9-7-8, Hughes County, was drilling deeper at 2,911 feet.

Denver Producing & Refining Co.'s No. 1 Dye, SW cor., Section 30-6-5, Pontotoc County, found a showing of oil in the Simpson sand at 3,748-56 feet.

Papoose Oil Co.'s No. 1, in Section 24-6-3, in the Wanette Pool, in Pottawatomie County, missed the Wanette sand and was drilling deeper at 3,603 feet.

GULF COAST

HOUSTON, Tex., July 19.—Coyle-Concord Oil Co.'s No. 1 Nelson, I.&G.N. Survey, Section 43, southern Colorado County, is rated as a 50,000,000-foot dry gas well following its completion in sand at a total depth of 4,052 feet in which 20 feet of 7-inch screen was set. Production is through quarter-inch chokes with a pressure of 1,500 pounds on casing and 1,250 pounds on tubing. This is the first production of any kind in Colorado County and is 40 miles from the nearest field. The well is in the middle of a 20,000-acre block and is an addition to the line of fields which includes Pettus, Raccoon Bend and Conroe.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., July 19.—Coyle-Concord Oil Co.'s No. 1 Nelson in southern Colorado County came in early Sunday morning estimated at 50,000,000 to 100,000,000 feet of dry gas. For the first hour it flowed drilling fluid and a little salt water and then blew in gas. It gauged 1,500 pounds pressure and is said to be nearer 100,000,000 feet of gas than it is 50,000,000. The volume was ungauged. Corrected total depth is 4,053 feet. After it started making salt water scouts and even the crew on the well left the location and shortly after that it blew in.

Atlantic Oil Producing Co. is preparing to survey for a line to run from the new Government Wells district in northern Duval County to Aransas Pass where the company has terminals for its line from the Refugio Field.

Amerada Petroleum Corp.'s No. 1 Kiolbassa in eastern Bexar County a wildcat on drill stem test got half a joint of oil and is setting casing. Drill stem dropped 1 foot and it is thought to have gone into a crevice in Taylor marl at 1,718 feet. Sand tester was set at 1,696 feet.

KANSAS

G. P. Dickey's No. 4 Decker, NW cor. SE, Section 35-19-2w, is estimated one of the largest wells yet completed in the Ritz-Canton Pool, in McPherson County. The well flowed 310 bbls. of oil in 40 minutes and was then shut in. It is located on the west side of the field and the production was found in the chat at 2,924 feet. Recent tests of the other producing wells on this lease show that No. 3 Decker has a potential of 4,506 bbls. a day; No. 1 Decker 3,675 bbls., and No. 2 Decker 3,194 bbls. daily. All of these are producing from the chat formation.

Midwest Refining Co.'s No. 7 Scheufler, C SW SE, Section 9-20-11w, a wildcat in Barton County, was given a swabbing test after being drilled deeper and made 30 bbls. of oil an hour for five hours from the Silicious lime at 3,304-34 feet.

The wildcat test of Siick, Pryor & Lockhart and others, No. 1 Berford, SW cor. NW, Section 7-17-10w, in Ellsworth County, was given a production test and made 227 bbls. of oil in 16 hours from the Kansas City lime at 3,140-52 feet. This test may be drilled deeper to the Silicious lime.

FRANCE INCREASES IMPORTS

Imports of crude petroleum and refined products into France for the first four months of 1932 totaled 1,295,511 metric tons, against 1,255,266 metric tons in the comparable months of 1931. The value of oil imports for the first four months this year was 535,208,000 francs, against 701,303,000 francs for imports during the first four months last year. The drop, it is believed, is due partly to heavier crude oil imports this year.

Federal Judges Uphold Texas Railroad Commission in East Texas Cases

SHERMAN, Tex., July 19.—Federal Judge Randolph Bryant today handed down the opinion of a special three-judge court denying the application of E. Constantin and other oil operators for a temporary restraining order to prevent the Texas Railroad Commission from enforcing orders concerning allowable production of oil.

The opinion resulted from a conference May 30 at Houston in which Judge Bryant considered the case with Judge Joseph C. Hutcheson of the appeals court at Houston and Judge William I. Grubb of Birmingham. Nine consolidated cases were covered in the opinion.

"In the last analysis these cases present another stand by some of the producers of oil in the East Texas oil field against the claimed usurpation of power on the part of the agencies purporting to act for the state," the opinion said.

"In the general sense that they challenge the power as unlawfully put forth behind a mask of pretense to accomplish a forbidden purpose of restricting production, they thresh again old straw."

The opinion pointed out that the plaintiffs' interpretation as shown in the record suggested that "instead of an act signal to preventing waste, regulations have been enacted in a sweeping way as a part of a general program to restrict production in the state and that the absence of this singleness of purpose has induced a regulation which, while it does not have relation to prevention of waste, is unnecessarily drastic in its limitation.

"The record, however, does no more than suggest this. We are without proof; we may not conjecture whether these orders are beyond necessity and that another plan for the field, bringing about ratable and reasonable withdrawals of a considerably larger amount of oil per well, or upon the basis of potential rather than per well, would accomplish the permissible purpose without trenching upon the unpermissible one."

The opinion held that due to absence of clear proof of the withdrawal allowed, or the method of distribution from the pool as a whole is restrictive to the plaintiffs beyond the necessities of the case, "we cannot strike down as unlawful upon their face the orders in question here, as, if they were orders entirely preventing production, or fixing a reduction ad absurdum in amount, we certainly could do."

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ended July 16 follows:

	Bbls.
WYOMING	
Salt Creek	19,810
Big Muddy	1,650
Badger Basin	50
Byron-Garland	1,100
Dallas Dome	320
Dutton Creek	70
Elk Basin	600
Ferris	20
Frannie	140
Grass Creek	4,320
Greybull	0
Hamilton Dome	830
Hudson	420
La Barge	590
Lance Creek	80
Lost Soldier	2,200
Mule Creek	0
Midway	100
Notches	0
Oregon Basin	0
Osage	780
Pilot Butte	40
Rex Lake	0
Rock River	1,140
South Casper	0
Poison Spider	70
Teapot	30
Warm Springs	0
Total Wyoming	34,260
MONTANA	
Buckley-Border	540
Cat Creek	850
Dry Creek	650
Kevin-Sunburst	4,170
Lake Basin	40
Pondera	1,040
Total Montana	7,330
COLORADO	
Florence	300
Fort Collins and Wellington	770
Iles Dome	600
Moffat	620
Orchard	270
Rangely	80
Tow Creek	250
Total Colorado	2,900
NEW MEXICO	
Artesia	455
Caprock	862
Hogback	350
Jal	902
Rattlesnake	710
Table Mesa	70
Eunice	510
Hobbs	29,496
Lea	1,987
Texas-Pacific	98
Total New Mexico	35,440
Total Rocky Mountain area	79,930
Total previous week	82,191
Difference	2,261

DEATH OF PERCY B. STERLING

Percy B. Sterling, aged 48 years, died in a Tulsa hospital on Monday, July 18, following an operation for appendicitis. Mr. Sterling was a native of Baltimore, Md. He had been engaged in the oil business in Oklahoma since 1913.

CANADIAN GASOLINE SALES

CHATHAM, Ontario, July 15.—The monthly statement just issued by the transportation branch of the Dominion Bureau of Statistics at Ottawa, covering gasoline sales in Canada for the month of March, 1932, shows increases in all provinces reporting except Quebec. Comparative figures for the various provinces for the two months, in imperial gallons, are as follows:

	February	March
Prince Edward Island	26,075	28,708
Nova Scotia	606,693	900,757
New Brunswick	380,681	827,361
Quebec	4,249,359	4,235,992
Ontario	12,863,830	15,449,445
Manitoba	1,081,013	1,375,817
Saskatchewan	780,450	(*)
Alberta	1,800,608	1,924,624
British Columbia	2,368,861	2,911,184

*Data not available.

WESTERN SERVICE SALE

BUTLER, Mo., July 18.—The gas system of the Western Service Corp. in Bates County was sold recently to satisfy a judgment. The sale was made by order of the Federal court in Kansas City, by D. C. Chastain, special master in chancery.

The purchaser will turn over the system to the Missouri Western Gas Co., which will take over the control of the entire system in Bates County. Local gas wells near Amsterdam in the county will continue to furnish the supply of gas for the distribution systems in Butler, Amoret, Virginia, Passaic and Adrian. The original cost of the pipe lines and meters in Bates County was $240,000.

Revenue Regulations Issued on Lubricants and Greases

(Continued from Page 21)

component material in the manufacture of nontaxable oils, paint, insecticides, soap stock, grease, etc.

"The term 'lubricating oils' does not include products of the type commonly known as grease. Oleaginous substances are classed as grease and not subject to the tax only if (1) of a worked consistency of less than 390 penetration units, or as unworked consistency of less than 360 penetration units, by the method of test of the American Society for Testing Materials D-217-27-T and (2) free from oil or comprising oil and a soap or a mixture of soaps or of soaps and other substances.

"Effective August 16, 1932, no lubricating oil shall be sold tax-free for further manufacture under Section 620 to any person (other than a refiner of crude petroleum) unless the exemption certificate furnished pursuant to Article 7 shows the registration number of the purchaser. Each manufacturer or producer of lubricating oils (other than a refiner of crude petroleum) will be granted a registration number upon application to the collector for the district in which is located his principal place of business (or, if he has no principal place of business in the United States, to the collector at Baltimore, Md.). Such numbers shall be in a separate series, beginning with the No. 1, for each district. Applications for registration numbers shall state the name and place or places of business of the applicant and the nature of the processes of manufacture or production in which he is engaged.

"A person who merely blends taxable lubricating oils is not a manufacturer or producer, and such a blender may not purchase lubricating oils for blending tax-free under Section 620 (see Article 7). A person who produces lubricating oils by a process of compounding involving more than the mere mixing of taxable oils, is a manufacturer or producer, and may be granted a registration number.

"A person who produces lubricating oil by reclaiming used lubricating oil, irrespective of the process used and whether or not new lubricating oil is added thereto, is a manufacturer or producer, and the tax attaches to oil so produced when sold or used by him for lubrication."

Air Corps of Army Awards Contracts for Aviation Fuels

(Continued from Page 29)

Midland Field, at 23.37 cents; 3,000 gallons for Fort Ringold, at 19.26 cents, all f.o.b. destination. Union Oil Co. of California, 7,000 gallons for Bolling Field, at 7.74 cents; 25,000 gallons for Pierson Field, at 7.74 cents; 84,000 gallons for Crissey Field, at 7 cents; and 70,000 gallons for Mather Field, at 7.66 cents, all f.o.b. destination. Standard Oil Co. of Ohio, 16,000 gallons for Columbus at 16 cents and 8,000 gallons for Lunken Airport at 16 cents, both delivered. Shell Eastern Petroleum Products, Inc., 5,000 gallons for West Point at 15 cents per gallon, delivered. Standard Oil Co. of Kentucky, 25,000 gallons for Chicago Municipal Airport, at 14 cents per gallon.

Richfield Oil Co. of California, 25,000 gallons for Long Beach Municipal Airport, at 6.9 cents, delivered; 32,000 gallons for Salt Lake City at 15 cents, delivered; 35,000 gallons for Biggs Field at 5.9 cents; 98,000 gallons for Fairfield at 5.9 cents; 42,000 gallons for Candler Field at 5.9 cents; 251,000 gallons for Lawson Field at 5.9 cents; 525,000 gallons for March Field, at 6.626 cents delivered; 112,000 gallons for Maxwell Field at 5.9 cents, refinery; 84,000 gallons for Rockwell Field at 7.22 cents, delivered; 310,000 gallons for Selfridge Field at 5.9 cents; 231,000 gallons for Wright Field, at 5.9 cents; and 42,000 gallons for Tucson, at 5.9 cents.

New Developments in Handling Safety Work of Interest to Operators

The cost of accidents which cannot be prevented by the use of safeguards alone form so important a part of the economic structure of the petroleum refining industry that the progressive refiner finds that it pays to carefully select and train the personnel at his refinery in accident prevention work. The results of a study of the prevention of accidents at refineries are presented in a report by R. L. Marek, issued by the U. S. Bureau of Mines. This publication is a discussion of the outstanding methods used by the industry to educate workmen in refinery accident prevention endeavors. The report deals with the responsibility of the management in accident prevention work; establishment of accident causes; medical and physical examinations; safety organizations; character of instructions; first-aid and fire-prevention organizations and training; supervision of personnel, and the inspection of equipment.

The initial responsibility in accident prevention work rests with the management, and the prevention of accidents is largely dependent upon educational practices. The responsibility of leadership by the management must be reflected by fellowship and teamwork by the superintendents, foremen and workmen. The necessity of establishing the basic causes and analyzing the fundamental causes of accidents before attempting to apply corrective measures are emphasized in the report.

The main purpose of physical examinations is not to obtain men who are physically perfect or to rule out men who have physical defects that can be corrected readily. The real purpose of the examinations is to determine an applicant's physical fitness to perform tasks to which he may be assigned without bringing hazard to himself or others, and to determine if he has physical limitations which may be corrected. The qualifications of the examining physician are discussed and a representative examination form is included, to show how one refiner compiles the data obtained from medical examinations.

Success in accident prevention efforts is not likely to be obtained without an organization to correlate the safety endeavors of all employes. Two refinery safety organizations are therefore discussed; one for a large refinery and the other for a relatively small one. Methods of instructing workmen in safe practices are discussed with emphasis placed on the importance of employe membership on safety and inspection committees as a means of securing a "safety minded" personnel.

Although fire-fighting technique has been developed to include the extinguishment of oil fires with water, the report points out that the use of water to extinguish an oil fire depends largely on the characteristics of the oil which has become ignited. Oils which froth when burning, such as fuel oil, crude oil, and lubricating oil, may be extinguished by the judicious use of water sprayed lightly and intermittently on the oil in small amounts to form a froth and thus "starve" the fire. On the other hand, refined distillates with low flashpoints may be extinguished with water only by applying a very fine spray of water or fog over the burning surface and thus diluting and cooling the vapor-air mixture with fine water particles so that combustion cannot continue. In applying water to hot oils (above the boiling point of water) care must be taken as these oils are liable to boil violently and cause a "slop-over."

Further details are given in Report of Investigations 3,146, "Selecting and Training the Refinery Personnel to Prevent Accidents," copies of which may be obtained free from the U. S. Bureau of Mines, Washington, D. C.

BRADBURN, A DIRECTOR OF McCOLL-FRONTENAC

CHATHAM, Ontario, July 16.—H. H. Bradburn, vice president western division, has been elected to the directorate of the McColl-Frontenac Oil Co. of Toronto and Montreal. Mr. Bradburn first joined the old McColl Brothers organization as a Toronto salesman in 1894 and two years later was sent to Vancouver to establish the company's business on the Pacific Coast. In 1908 he was transferred to Winnipeg to develop sales in the prairie provinces, being placed in complete charge of marketing in that territory; and in 1920 was made vice president of McColl Brothers. Upon the organization of the McColl-Frontenac Oil Co. in 1928 he was appointed vice president in charge of the western marketing division with headquarters at Winnipeg.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA

(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Signal Hill (Long Beach)	Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Domingues	Montebello	Wheeler Ridge	Coalinga	Whittier-LaHabra
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$.65	....	$.55	$.55	....	$.65	$.55	$.55	$.65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	.65	....	.59	.59	....	.65	.57	.59	.68
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.72
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.63	.65	.77
23-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.83
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	.73	.81	.81	.89	.76	.69	.72	.89
25-25.9	.93	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	.97	....	.96	.97	....	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	.98	.94	1.02	.99	1.03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1.02	.98	1.07	1.02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1.05	1.02	1.12	1.05	1.09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1.10	....	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

The Texas Company, effective June 26, posted same prices as the Standard Oil Co. in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello, North Whittier and Santa Fe Springs.

The Union Oil Co., effective June 26, posted the same prices as the Standard Oil Co. in the Signal Hill, Alamitos Heights, Seal Beach, Huntington Beach, Athens, Rosecrans, Domingues, Torrance, Santa Fe Springs, Playa Del Rey, Coyote, Olinda, Brea Canyon, Richfield and Montebello. In Coalinga, Lost Hills, Kern River, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills the Union Oil Co. met the Standard Oil Co.'s prices from 14 gravity upward, but posted a price of 50 cents for oil 11 to 13.9 degrees in gravity.

General Petroleum Co. adopted Standard Oil Co.'s prices, effective June 26, in Rosecrans, Signal Hill, Alamitos Heights, Santa Fe Springs, Inglewood, Torrance, Brea Canyon, and Olinda, up to 35.9 degrees; Richfield, Ventura Avenue, Midway-Sunset, Fruitvale, Kern River, Poso, Round Mountain, and Coalinga and posted in Rincon as follows: 22-22.9 degrees, 68 cents; 23-23.9 degrees, 73 cents; 24-24.9 degrees, 78 cents; 25-25.9 degrees, 82 cents; 26-26.9 degrees, 86 cents; 27-27.9 degrees, 89 cents; 28-28.9 degrees, 92 cents; 29-29.9 degrees, 95 cents; 30 degrees and over, 98 cents. In Rosecrans General Petroleum Co. pays 65 cents for 14 to 19.9 gravity oil; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 74 cents; 22-22.9 degrees, 79 cents; 23-23.9 degrees, 84 cents and Standard's prices for oil of higher gravity.

Associated Oil Co., effective June 26, met Standard Oil Co.'s prices in Signal Hill, Huntington Beach, Seal Beach, Alamitos Heights, Richfield, Torrance, Inglewood, Athens, Rosecrans, Dominguez, Santa Fe Springs, McKittrick, Kern River, Midway Sunset, Elk Hills, Buena Vista Hills, Lost Hills, Belridge and Coalinga.

Kettleman Hills—The Union Oil Co., effective June 26, posted 33-33.9 gravity oil at 91 cents; 34-34.9 degrees, 93 cents; 35-35.9 degrees, 95 cents; 36-36.9 degrees, 97 cents; 37-37.9 degrees, 99 cents; 38-38.9 degrees, $1.01; 39 degrees and over, $1.03, Standard Oil Co. Associated Oil Co. and General Petroleum Co. adopted same price schedule on same day.

Santa Paula—The Union Oil Co. and The Texas Company, effective June 26, posted as follows: 14 degrees to 19.19.9 degrees, 65 cents; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 72 cents; 22-22.9 degrees, 75 cents; 23-23.9 degrees, 78 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 84 cents; 26-26.9 degrees, 87 cents; 27-27.9 degrees, 90 cents; 28-28.9 degrees, 93 cents; 29 degrees and above, 99 cents.

Shiells Canyon and South Mountain—The Texas Company, effective June 26, posted same prices as in Santa Paula.

Orcutt—The Union Oil Co., effective June 26, posted prices as follows: 16 degrees to 19.9 degrees, 55 cents; 20-20.9 degrees, 59 cents; 21-21.9 degrees, 63 cents; 22-22.9 degrees, 69 cents; 23-23.9 degrees, 75 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 87 cents; 26 degrees and above, 92 cents.

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Ventura Avenue—General Petroleum Co. and Associated Oil Co. effective June 26 posted as follows: 22-22.9 degrees, 72 cents; 23-23.9 degrees, 77 cents; 24-24.9 degrees, 82 cents; 25-25.9 degrees, 86 cents; 26-26.9 degrees, 90 cents; 27-27.9 degrees, 93 cents; 28-28.9 degrees, 96 cents; 29-29.9 degrees, 99 cents; 30 degrees and over, $1.02.

Potrero—Associated Oil Co., effective June 26, posted same prices as are paid by all companies in Athens, Rosecrans and Domingues.

LAY-SET SAVES YOU MONEY

BECAUSE IT GIVES MUCH LONGER SERVICE

LAY-SET gives service which averages between 30% and 300% longer than given by non-preformed rope of the same grade and construction, the variation depending entirely on the nature of the work and type of equipment.

NOTE THE HELICAL SHAPE OF THE REMOVED STRAND

This illustration is made from an honest unretouched photograph. Note how you can remove a strand. You can turn it end for end and fit it back into position, which demonstrates the perfect balance of LAY-SET strands.

Note also that the ends need no seizing—there is no internal stress. Strands and wires lie naturally in position, free and relaxed.

Send for your copy of this interesting booklet which explains and illustrates 12 advantages of LAY-SET Preformed Wire Rope. Every purchaser of wire rope should read this booklet before ordering another foot of wire rope.

Preforming is a Patented Manufacturing Process ..not a Type of "Lay" or Construction

We find that it is not clear in the minds of some wire rope users that Lay-Set Preformed Wire Rope can be furnished in every lay, type of construction, and grade of wire rope in general usage today. There are four basic wire rope "lays" which are as follows:

Right Lay, Regular Lay

Left Lay, Regular Lay

Right Lay, Lang Lay

Left Lay, Lang Lay

The above four lays are also furnished with an independent wire rope center instead of a hemp center.

Also, there are various types of wire rope constructions known as "Seale," "Warrington," "Filler Wire," etc., having to do with the number, size and arrangement of the individual wires, and are furnished in the various lays illustrated above.

In addition, there are different grades, such as Iron, Traction Steel, Cast Steel, Mild Plow Steel and Improved Plow Steel. (Hazard's "Olympic Green Strand" is Improved Plow Steel).

The point to remember is this . . .

Lay-Set Preformed Wire Rope is furnished in all sizes, lays, types of construction and grades . . . and gives increased service over non-preformed wire rope of the same size, lay, type of construction and grade.

While you may be receiving better satisfaction from Hazard non-preformed wire rope than from other brands of non-preformed wire rope, we recommend that you be sure to insert the words "LAY-SET PREFORMED" in your order.

HAZARD WIRE ROPE COMPANY
WILKES-BARRE, PENNSYLVANIA

New York Pittsburgh Chicago Denver Fort Worth Los Angeles
San Francisco Birmingham Philadelphia Tacoma

SERVICE ON NEW FIELDS

Government Wells Field, Duval County, Texas

Compiled by The Oil and Gas Journal, July 21, 1932

LOCATION OF FIELD

Approved name.

Government Wells, formerly known as Schoolfield-O'Byrne, or Duval County Oil Field.

Geographic location.

Northwest Duval County, about 22 miles northwest of the town of San Diego and slightly east of north of the town of Hebbronville.

Principal cities and towns near field.

San Diego, Benavides and Hebbronville are nearest towns to the field. Laredo, Mirando City, Corpus Christi and San Antonio also connected with field by highways and roads.

Cities and towns having supply houses.

This field is served from stocks at Hebbronville, Mirando City, Pettus, Beeville, Corpus Christi, San Antonio, Laredo and Houston.

Railways serving area.

Nearest railroad passes through San Diego and is the Texas & Mexico Railroad running from Corpus Christi to Laredo. Southern Pacific passes through Alice, 10 miles east of San Diego, and also serves the field. Missouri Pacific handles freight to Corpus Christi, from which point it can be hauled by truck over paved and dirt roads to field. I.&G.N. runs between San Antonio and Laredo, and material is being hauled to field over paved and dirt roads from either town.

Type of warehouse sites available.

The Texas & Mexico Railroad can provide space on its right of way with trackage at Hebbronville, Benavides, San Diego or Alice. Some privately owned land is also available at these places. Southern Pacific Railway can supply trackage sites in Alice, Corpus Christi and other towns.

Type of leases available.

General freight or industrial agents for the T.&M.R.R. Co., Laredo, can furnish leases for warehouse sites. They are usually made for a term of years with fixed yearly rental.

Character of roads serving area.

The main paved highway between Corpus Christi and Laredo passes closest to this field and good dirt roads lead to it from San Diego, Benavides or Hebbronville. Dirt roads also lead to the field from Mirando City and from San Antonio. Most trucking is done from the first three towns, but it is possible to reach the field from other fields and cities over other paved highways connecting with Highway 12-A at Alice and Laredo.

Trucking companies serving field.

Several companies located in principal cities and towns in Southwest Texas are prepared to make contracts to deliver oil field equipment to location from these cities or from other oil fields in this region.

Hotel and other accommodations.

There are no hotels at the Government Wells Field. Some companies have camps and there are a few eating houses in or near the field. Good hotel accommodations in all the cities and towns along the main highways or in towns served by railroads. Oil field workers are provided with ordinary accommodations in field, but others drive in and out as their duties require.

Schools and churches.

District schools and a few churches scattered through the region, but none located in the field. School buses travel between field and schools and with automobiles families can attend churches conveniently.

Domestic water supply.

Field camps have good drinking water developed in drilled wells. Towns located nearest to the field have good domestic water supplies.

Electric power and gas companies serving town.

Field camps have gas piped from local wells and a few houses have electric lights from portable outfits. No electric lines serve the field for power purposes. Nearby towns have both gas and electricity for domestic purposes furnished by local plants and distributing systems.

Character of buildings used for warehouses.

Supply company warehouses are mostly of the wooden frame and corrugated iron type on concrete foundations with accommodations in upper story for employes. Oil company field warehouses built of wood and corrugated iron.

General remarks.

The Government Wells Field lies in a cattle and farm country with roads of both the graded and ungraded dirt type leading to it from paved highways. There are a few small stores in the field. There are large general stores in the immediate vicinity of the oil fields which carry a good stock of staple goods and have served the ranchmen and farmers for years past. Alice, San Diego, Benavides, Hebbronville and Mirando, all towns along paved highway, have good stores, and many businesses located there make deliveries to the homes in the oil field. Fresh bread, vegetables and meat are delivered each day, and laundry, cleaning establishments and others serve the oil field workers regularly. There are small country banks in Alice, San Diego, Hebbronville and Mirando City, with larger institutions in Laredo, Corpus Christi and San Antonio. Corpus Christi is located on tidewater and will serve as a distributing center for handling of oil field equipment in bulk by water shipment from factories located in the East and delivery by truck from warehouses to the oil field locations in one handling.

DEVELOPMENT

Date of discovery of field.

Drilling began in area in 1926 but oil was not discovered until August, 1928.

Field statistics.

June 30—	
Locations	5
Rigs	5
Drilling	6
Completions	8
Oil	6
Gas	1
Dry	1
Water	0

Acres of land leased in Duval County.

311,588 acres reported December 31, 1931.

Future activities.

Extensions of the main field to both the south and north indicate that there will be continued activities in this area for some time.

Type of drilling equipment used.

Rotary outfits with both steam and internal combustion engines for power.

Derricks.

Steel derricks, 90 or 122 feet high, are now generally used, but wooden derricks were used during early development period. Nineteen derricks, mostly wooden, blew down in high wind about May 15.

Fuel.

Gas is available from oil wells for drilling purposes.

Size and type of boilers.

Two 100-horsepower oil field type boilers used, but at a few wells three of the same size boilers are used. Steam pressure 250 pounds.

Type bits and stems.

Fishtail bits, some with hard inserts are used. Stems 4-inch diameter. For reaming after coring it is usual practice to use rock bits.

Size hole and casing program.

Wells usually started with hole big enough for a short string of 10-inch surface casing which is cemented and then hole reduced to 8¼-inch size for 6⅝-inch string set above pay and

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Send me free bulletins on LAYNE PUMPS, WELLS and WELL WATER SYSTEMS which tell how LAYNE cuts the cost of water for Refineries, Producers and Pipe Line Pumping Stations.

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An actual incident in Layne history.

"ژیه حتیرین سدیو"*

¶ Tozeur is an oasis in the Sahara desert. One hundred miles of scorching sand lie between it and the desert's edge.

¶ It is older than tradition and as hot as the place Mohammed said was reserved for unbelievers.

¶ To Tozeur, on a commission from the French government, went Layne hydrological engineers to build a new water system to replace the old and dangerous, fever-laden supply.

¶ They finished the first of five new Layne wells. A Layne pump was spouting clean, cool, pure water that came from a thousand feet below the desert.

¶ Selim Ben Yahya, who had led camel caravans across the desert more times than there were hairs in the beard of the Prophet, tasted the water.

¶ His grin spread until it threatened to engulf his own white beard.

* **"WATER OF HEAVEN!" he said.**

¶ "What do you mean—'water of heaven?'" one of the engineers asked him.

¶ "Did not Mohammed himself say that heaven is a place of sweet water?" Selim explained.

¶ Let us tell you all about Layne Pumps and Gravel-Wall Wells - *why* they produce more water - cost less - last so long.

FREE *The coupon (or letter) will bring you new and complete bulletins. Send for them.*

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& WELL WATER SYSTEMS

LAYNE & BOWLER, INC. · MEMPHIS, TENN.

SERVICE ON NEW FIELDS

Government Wells Field, Duval County, Texas

(Continued from Preceding Page)

cemented. It is usual practice to run 2½-inch tubing in wells in the south extension of the field upon completion for flow string.

Tubing used.

It is usual practice in south end of field to run 2½-inch tubing when well is completed for flow string. The 6⅝-inch casing is swaged at top to accommodate the 2½-inch tubing and common head used above swage. One or two 2-inch lines run from head and are fitted with valves to control flow of gas between casing and tubing. One gate valve only used on most wells on 2½-inch tubing at well head.

Company or contractor's tools.

Most holes are let to contractors.

Depth of wells.

The producing sands are found between 2,250 and 2,400 feet in the main part of the pool and a little deeper in the south extension. However, it is believed by geologists that there is some change in the character of the producing horizons in the south extension.

Speed of drilling.

The formations are all relatively soft and good speed is made in drilling. Cement behind casing usually allowed six days to set before sands are cored and drilled in.

Character of mud.

The formations make a good natural mud which drop cuttings freely in the usual type of earthen slush pits.

Slush pumps.

Usual size, 15"x7¾"x20".

Drilling water supply.

A good grade of boiler feed water is obtained from drilled wells in the field and piped to boiler plant at location.

Rig builders and contractors.

For work in this field it is the usual practice to hire rig builders and contractors from other areas, as there has not been enough work to warrant crews being maintained in field constantly. If there is any marked increase in activities local service will be maintained. Tank and casing crews usually move in for the job and then drive back to their homes.

PRODUCTION PRACTICE

Method of producing oil.

As the oil in this area is only produced as pipe lines will run it, there is a tendency to alternate flowing of wells to meet market requirements. The wells will produce about 500 bbls. per day and have plenty of gas accompanying the oil. Wells are flowed through tubing into separators.

Gravity of oil.

The oil has a 24-degree A.P.I. gravity in south end of field. Gravity in main body of field is 21-degree A.P.I.

Water conditions.

One well in the south end of the field is making about 30 per cent water when flowing 400 bbls. of oil through 2½-inch tubing. This oil and water is run into an open pit and the oil and some water skimmed off. This mixture is run to a square three-compartment concrete cleanup vat. In the bottom of the first section there are 2-inch pipe coils through which steam is passed and the temperature of the oil and water maintained at about 190°. Treating chemical is added and the oil is skimmed off and passes to the second and third section. The water is boiled off until only a 2 per cent water content remains in the pipe line oil. A 40-horsepower boiler is used to furnish steam for the coils and gas is used for fuel to fire the boiler. It is operated at about 60 pounds pressure. About 5 gallons of treating chemical are used every 30 hours. The pit is open but the oil is of such a character as to permit heating to about 200° F. without appreciable change in gravity and only small loss in volume.

Separators and tankage.

At flowing wells the usual type oil and gas separators are used, the gas being piped to vertical discharge pipes where it is turned into the atmosphere without burning. The oil goes to a 750-bbl. flow tank where additional gas is permitted to escape through stack and the oil then runs to 500 or 1,000-bbl. lease storage tanks.

Pipe lines serving field.

The Humble Oil & Refining Co. is handling the oil out of this field for all companies. United Gas Co. has gas lines passing through the immediate area and are prepared to take gas as needed.

Pumping conditions.

No wells are now on the pump in the south extension.

Paraffin.

None.

Are wells shot?

No.

GENERAL GEOLOGY

The production in the Government Wells Field comes from the sands found in the Middle Jackson (Fayette) formations. The field is located just below the Reynosa Escarpment which forms a prominent marker for the region. The Jackson formation is of Tertiary age and at outcrops varies from 480 to 900 feet in thickness. Like all formations in this Southwest region the Jackson was laid down practically flat but since its deposition the inland part of the region, near the center of the State, has been gradually elevated, and as a consequence all of the beds south and east of the Balcones fault have been slightly tilted toward the sea. As this tilting process was taking place erosion was gradually wearing down the part of the land being lifted, so that the lowest formations in the section are exposed at the greatest distance from the sea, with the uppermost or youngest at the coast itself. This Jackson formation is also productive in Kohler, Leaseholders, Mirando City, Mirando Valley, Pettus, Randado, S.R.C. and Three Rivers Fields.

GENERAL DATA

Most of the major companies have undeveloped acreage in Duval County and the reports of January 1, 1932, are as follows:

	Acres
Amerada Petroleum Corp.	180
Barnsdall Oil Co.	223
Continental Oil Co.	3,101
Empire Oil & Gas Co.	9,769
Gulf Production Co.	16,589
Humble Oil & Refining Co.	26,913
Houston Oil Co.	6,978
Magnolia Petroleum Co.	116,107
Pure Oil Co.	2,800
Shell Petroleum Corp.	9,124
Simms Oil Co.	2,852
Sinclair Oil Co.	6,084
Stanolind Oil Co.	24,207
Sun Oil Co.	31,479
The Texas Company	47,682
United Production Co.	7,502
Total	311,588

This acreage is scattered through a large part of this county, which has a total acreage of 1,089,920. There is a large amount of land under lease to individuals and smaller companies not included in the above tabulation.

It is reported that the total oil produced in the Government Wells Pool up to January 1 was 2,641,302 bbls. from a total of 65 wells. The area of the pool is given as 750 acres, and the average recovery per well as 40,635 bbls. The per acre yield up to December 31, 1931, was about 3,522 bbls.

High lines.

Central Power & Light Co. has an electric line at San Diego, the nearest point on the line to the Government Wells Field, and which can be extended to the field if demanded. An abundance of gas in the field for fuel has operated against extending electric lines. Office of Central Power & Light Co. is in Alamo National Bank Building, San Antonio, Tex.

Telephone.

Long-distance telephone connection can be had to Freer, a small town close to the field.

PROVED PERFORMANCE

Remarkable performance records have proved the unvarying dependability of Pittsburgh Seamless Drill Pipe, Casing and Oil Well Tubing under the most severe strains and at record depths. They are manufactured in accordance with A. P. I. specifications, either in Grade C or Grade D High Tensile.

Prompt deliveries from complete stocks at Memphis.

PITTSBURGH STEEL COMPANY

Seamless Tube Division, Pittsburgh, Pa.

New York Chicago Detroit St. Louis Tulsa Houston

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DRILL PIPE • CASING

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Seamless
OIL WELL TUBING

East Texas Allowable Reduced to 46 Barrels; Surprising Revival of Upshur County Well

By L. E. BREDBERG

DALLAS, Tex., July 18.—On July 16 the East Texas Field was again curtailed, a 4-bbl. per day decrease bringing the per well allowable down to 46 bbls. With approximately 6,850 producers in the field, this brings the daily allowable for the field down to around 315,100 bbls., or 10,000 bbls. below the maximum set by Railroad Commission. However, it has been proved conclusively that considerably more oil is being produced than the maximum allowable, refinery and pipe line receipts, in several cases, showing discrepancies.

Excess production is held as the main reason for the maximum allowable being held to 325,000 bbls. per day, and for the price not having a chance to be increased, but instead, being in such a weakened condition that it might even be lowered, according to a representative of one of the large purchasers in the field. "Why should we raise the price, or even pay 98 cents for the oil," said this representative, "when others are getting it for half this price, or even lower?" He also stated that one operator was selling oil to major purchasers for the 98-cent market price, and in turn was purchasing excess oil from several leases for around 50 cents, this oil to go to the operator's refinery in the district. "Injunctions to prevent the operators from violating the Railroad Commission's orders, are ignored," were the words of the pipe line company representatives, "although much of the oil might be stolen from the landowners in the district." However, in some cases the royalty owners and landowners know of the excess production, and are favorable to such production, and selling below the market price.

Await Court Decision

All operators, companies and others interested in the East Texas Field, are standing by awaiting announcement of the three-judge Federal Court decision which is expected any day. The future of the commission's proration authority in this field and others hangs on the outcome of the case of Eugene Constantin, John D. Wrather and others versus the Railroad Commission. The case was tried the latter part of May in Houston. The plaintiffs were allowed 15 days to file briefs, and the commission the same length of time to file its answers.

Since Constantin and Wrather filed their suit many other operators in the field have also secured Federal court restraining orders, and if the court should decide that proration, as now enforced in the field, is unconstitutional, a great amount of oil may be turned loose on the market by those who secure injunctions. With 6,850 or 6,900 wells in the field the amount that could be produced daily would reach a staggering total. It would be a question then, of how long the field could produce unrestrained before salt water started flooding the wells.

Average daily production for the week ending July 11 was 337,420 bbls., while distribution for the same period ran 315,132 bbls. There were 131 locations staked during the week ending July 15, and 5 wildcat locations. There were 138 wells completed, and 3 wildcats abandoned.

The biggest surprise of the week was the completion of Maddox Development Co.'s No. 1 Willie Starr in the Cooper Survey, Upshur County. The well formerly appeared as only a small pumper, refusing to flow, and going dead after swabbing, but was revived and made an initial gauge of 15 bbls. per hour through 1½-inch tubing choke, much to the surprise of those interested in the well, and to those expecting the test to prove either a failure or small pumper. It is 2 miles east of Cranfill & Reynolds' pumping well, and approximately 1½ miles north of the nearest producer between it and the field. It was formerly written off as a field marker on the north, but now appears as another extension well for Upshur County. Total depth is 3,666 feet, 4 feet in the sand.

T. J. Carter and others' No. 1 Annie Kelly in the De Los Santos Coy Survey, Cherokee County, which first swabbed 100 per cent salt water when tested, was plugged back and another test made, but unsuccessfully. Total depth was 3,762 feet. Elevation is 380 feet. It is 1,900 feet southwest of the nearest producer.

River Bed Locations

There have been 20 locations staked on various tracts of the Sabine River bed, Gregg County, recently leased by the State to the Rhodes Drilling Co. of Fort Worth. The Blue Star Oil Co. staked 13, and Rhodes Drilling Co. 7. About 20 more locations will have to be drilled in the near future to take care of offsets, but locations will not be staked by the companies holding leases on the river bed until forced.

Unconnected Wells

The East Texas Pipe Line Committee will hold another meeting at Dallas July 19 to obtain connections for all completed producers in the field. The purchasing companies frown upon the drilling of more than one well to every 20 acres, and those operators who are subdividing their small leases with intention of drilling more than one well on the tracts will find it extremely difficult in the future to obtain pipe line connections for such wells. These subdivisions, and subsequent wells will lead to trouble for the owners and the entire district if the Railroad Commission continues to grant permits for such wells. The commission set the order that only one well should be drilled to every 20 acres, but is not observing it. Heretofore only one member of the commission was required to sign permits for wells, but by agreement, all three members will sign future permits, which should have some effect in curtailing the issuing of permits.

There are around 90 wells in the field without market outlet, and it is hoped the majority of these will secure connections, but several of the purchasing companies have stated they would take on no more wells, throwing the burden of connecting to new wells on those companies which are trying to cope with the situation and prevent distress oil from being thrown on the market.

Joe Marr Drilling Co.'s No. 1 Lacy, 1 mile west of the southernmost gas producer of the Joiner area, Rusk County, is preparing to run 7-inch casing and make another test. The test has been standing shut down for several weeks after it was tested but showed nothing more than a little oil and gas in the mud. Total depth is 3,705 feet. Location is in the J. H. Sparks Survey. The Stanolind Oil & Gas Co. has made location for its No. 1 Rettig, 3,000 feet west of its No. 1 Lacy, in the J. H. Sparks Survey, 2,000 feet northwest of the Marr Drilling Co. test.

Tax Assessments

Tax assessments in the Gregg County part of the vast field are now being made, and the assessed value of oil property in this area alone, is estimated at approximately $75,000,000 in addition to lease and well equipment and actual production, as of January 1, 1932. Assessments are being made on 50 per cent of value. Productive property is assessed at $2,500 per acre downward, while a fixed rate of one-sixth on royalty interests has been established. Royalty owners have registered protest on this assessment, and a movement has been started to secure an adjustment, if possible, on the claim that royalty value should not be more than one-eighth of that set up for leases. Operators assert that since royalty interests are not required to share expense of development, and since no other expenditures are required on their holdings, the rate of one-sixth is not excessive.

Operators anticipate that Rusk County assessments will be approximately the same as in Gregg. Tax experts assert that assessments on productive leases are considerably out of line with the proportionate value of farms, business property and residences.

Smith County tax assessments have been raised approximately $5,000,000 by oil properties, according to a member of the county equalization board, after five weeks of equalizing taxes. All of these assessments go to show just what the oil industry has meant, and will mean to the five producing counties in the field, and to other counties in the district in which oil may be found.

Due to the southern part of Rusk County being low and marshy, giving considerable trouble to operators, especially during the rainy season, the Stanolind Oil & Gas Co. and Pure Oil Co., joint owners in several large leases in this area, are constructing dump roads into their leases. Cost of these roads averages around $1,400 per location, which is cheaper than constructing bridges.

H. L. Hunt, one of the largest independent operators in the field, has put his men on the five-day week plan, same as the Humble Oil & Refining Co. Salaries will not be cut if the same number of employes can carry on the work under this plan.

The Shell Petroleum Corp. farmed out its "B" lease in the W. P. Chisum Survey, Gregg County, to L. E. Collins. Three wells are to be drilled on the lease immediately.

Largest Producers

On July 9, the nine largest producers in the field were as follows:

Humble Oil & Refining Co., 683 producers; Gulf Production Co. and associates, 448 producers; Sinclair Prairie Oil Co., 385 wells; Magnolia Petroleum Co., 323 wells; Sun Oil Co. and others, 216 wells; Tidal Oil Co., 212 wells; Shell Petroleum Corp., 211 wells; Atlantic Oil Producing Co. and others, 204 wells; and Stanolind Oil & Gas Co., 192 wells.

The Camden Oil Co. has constructed a gathering system to the James Jordan and E. Davis Surveys in Smith County and has connected with five wells, delivering the oil to the Atlas Pipe Line Co. which has a line to Shreveport, La.

The Magnolia Petroleum Co., which standardized a large part of its wells in the field then stopped such work for some time deeming it impractical, has resumed the practice. It is the only company in the field carrying out such a program, all others waiting until standardizing is necessary.

Two More Pumpers

Two more pumpers were reported for the week. H. K. Spear and others' No. 1 J. M. Dickson in the M. Van Winkle Survey, Gregg County, was completed for an initial production of 50 bbls. in 12 hours, pumping, at a total depth of 3,610 feet. Sand was topped at 3,523 feet.

H. L. Hunt, Inc.'s No. 3 Russell in the Juan Ximines Survey, Rusk County, was completed for 50 bbls. pumping 20 minutes, at total depth of 3,670 feet. Sand was topped at 3,728 feet. Service Drilling & Royalty Co.'s No. 1 J. W. Free in the Hooper Survey, Upshur County, made only 30 bbls. per day, by heads, when completed at total depth of 3,680 feet. Sand was topped at 3,665 feet.

Wildcatting Operations

C. O. Boatwright and C. R. Hull are assembling a block of 6,000 acres for W. D. Saulsbury of Pampa, Tex., centering in the W. B. McNutt, P. Whetstone, H. B. Carlton, H. Warren, B. Ledman, H. Brantlan, B. McFarland, W. B. Stone and G. W. McGowan Surveys, 3 miles east of Mineola in Wood County, and will start a Woodbine sand test at once.

H. C. Peques and A. Peacock of Mineola are assembling a block of 6,500 acres of 4½ miles south and east of Mineola and will start a test by September 20. The block centers in the C. Blackburn, D. Hennique, J. Dean, S. English, W. Greer, J. Smith and others surveys in this vicinity, Wood County.

B. F. Findley and J. L. Meek of Marshall are trying to assemble a block in the James Harris, Samuel Murphy, B. Rogers and H. Blossom Surveys, 2 miles east of Marshall and will drill a Trinity test.

Dorrell's No. 1 Pannhill, 5 miles southwest of Kaufman in Kaufman County, is to be deepened from 2,020 feet where it now stands shut down to the Woodbine sand. Leases are being rewritten on this block.

The Robertson Drilling & Development Co. is assembling a block 5 miles southeast of Ridge, along the Navasota River, for a test. A recent test in this vicinity was abandoned at 5,200 feet.

There were five wildcat locations made for tests in the various counties in East Texas the past week.

Frazier and others have staked location on their H. L. Hudson lease in the M. Rionda Survey, Anderson County, and will spud at once.

Roy Anderson has staked a location 2 miles west of Texarkana in the M. Dykes Survey, Bowie County, and is now waiting for cement to set. The test is on the Dykes lease.

H. H. Meyers has made location on his M. E. Olson lease, 2 miles south of the Brownsboro tract in the northwest corner of the Wilson Survey, Henderson County.

Chandler and others have made location on their Mrs. W. Walker lease in the Bowerman Survey, Hunt County.

Location had been made by A. C. Rowan on his W. E. Price lease in the John Walling Survey, Van Zandt County.

Van Field—Van Zandt County

Two producers were completed in the Van Field the past week and two new operations started. There are five active tests in the field at present.

Week Ending July 16

COMPLETIONS IN EAST TEXAS

North Gregg County

Abernathy and Kirkpatrick's No. 1-D

R. M. Woods, top sand 3,657 feet, initial production 85 bbls. per hour through 1-inch tubing choke; total depth 3,674 feet. Amerada Petroleum Corp.'s No. 4 D. B. McPherson, top sand 3,575 feet, initial production 77 bbls. per hour through three-quarters-inch tubing choke; total depth 3,605 feet. Arkansas Fuel Oil Co.'s No. 6 M. D. Allison, top sand 3,574 feet, initial production 35 bbls. in one-quarter hour through 1-inch tubing choke; total depth 3,595 feet; No. 4 V. Calvin, top sand 3,516 feet, initial production 45 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,539 feet; No. 2-A M. Smith, top sand 3,468 feet, initial production 38 bbls. in one-quarter hour through three-quarters-inch tubing choke, total depth 3,495 feet. Atlantic Oil Producing Co.'s No. 5 Judge, top sand 3,492 feet, initial production 65 bbls. per hour through tapered tubing, total depth 3,528 feet; No. 14 Judge, top sand 3,503 feet, initial production 64 bbls. per hour through tapered tubing, total depth 3,525 feet; No. 22 Judge, top sand 3,492 feet, initial production 65 bbls. per hour through tapered tubing, total depth 3,521 feet; No. 6 T. W. Lee, top sand 3,612 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,652 feet; No. 7 Moore, top sand 3,498 feet, initial production 64 bbls. per hour through tapered tubing, total depth 3,523 feet; No. 15 Moore, top sand 3,522 feet, initial production 64 bbls. per hour through tapered tubing, total depth 3,545 feet; No. 17 Moore, top sand 3,510 feet, initial production 64 bbls. per hour through tapered tubing, total depth 3,520 feet; No. 7 M. Turner, top sand 3,557 feet, initial production 22 bbls. per hour through tapered tubing, total depth 3,602 feet.

Atlantic and Stanolind Oil & Gas companies' No. 4 F. C. Fishburn, top sand 3,488 feet, initial production 34 bbls. per hour through tapered tubing, total depth 3,525 feet. Atlantic and Sun Oil companies' No. 2-B R. C. Barnawell, top sand 3,491 feet, initial production 60 bbls. per hour through tapered tubing, total depth 3,543 feet; No. 3-C R. C. Barnawell, top sand 3,480 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,523 feet; No. 11 Hays, top sand 3,512 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,548 feet; No. 13 M. Hays, top sand 3,520 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,560 feet.

R. W. Bond, trustee's No. 1-B J. M. Christian, top sand 3,598 feet, initial production 65 bbls. in one-half hour through 1-inch tubing choke, total depth 3,625 feet. Empire Gas & Fuel Co.'s No. 6 T. W. Lee, top sand 3,530 feet, initial production 120 bbls. per hour through 2-inch open tubing, total depth 3,564 feet; No. 4 Spurrier, top sand 3,532 feet, initial production 32 bbls. in one-quarter hour through 2-inch open tubing, total depth 3,605 feet. Gus Glasscock's No. 2 A. V. Bacle, top sand 3,634 feet, initial production 41 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,645 feet. Guiberson and others' No. 1 C. L. Taylor and others, top sand 3,466 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,516 feet.

Gulf Production Co.'s No. 5 A. V. Bacle, top sand 3,576 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,608 feet; No. 5 F. M. Fonville, top sand 3,503 feet, initial production 100 bbls. per hour through three-quarters-inch tubing choke, total depth 3,539 feet; No. 10 Judge, top sand 3,526 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,552 feet; No. 12 Judge, top sand 3,500 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,524 feet; No. 12 M. O. Sheppard, top sand 3,478 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,504 feet; No. 13 Sheppard, top sand 3,478 feet, initial production 81 bbls. per hour through three-quarters-inch tubing choke, total depth 3,509 feet.

Island Oil Co.'s No. 1 J. W. Akin, top sand 3,580 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,609 feet. Jones & O'Briens, Inc.'s No. 4 McHaney-Lobe, top sand 3,493 feet, initial production 50 bbls. in 20 minutes through 1-inch tubing choke, total depth 3,513 feet. Lucey Petroleum Co.'s No. 2 A. M. Kinsell, top sand 3,629 feet, initial production 125 bbls. per hour through 1-inch tubing choke, total depth 3,656 feet. Magnolia Petroleum Co.'s No. 4 R. L. Salter, top sand 3,601 feet, initial production 120 bbls. per hour through 2-inch open tubing, total depth 3,630 feet. F. W. Merrick, Inc.'s No. 5 Nicholson, top sand 3,652 feet, initial production 70 bbls. per hour through open 2-inch tubing, total depth 3,672 feet. Nash and Windfohr's No. 3 C. Jones, top sand 3,585 feet, initial production 45 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,643 feet. Pilot Oil Co.'s No. 3 P. McGeorge, top sand 3,469 feet, initial production 50 bbls. in 25 minutes through 1-inch tubing choke, total depth 3,492 feet. Prince Brothers' No. 4 Williams, top sand 3,607 feet, initial production 95 bbls. per hour through 1-inch tubing choke, total depth 3,642 feet.

Shano Oil Co.'s No. 2 S. G. Smith, top sand 3,543 feet, initial production 60 bbls. in one-half hour through 1-inch tubing choke, total depth 3,590 feet. Shell Petroleum Corp.'s No. 5 T. B. Stinchomb, top sand 3,458 feet, initial production 30 bbls. in one-quarter hour through tapered tubing, total depth 3,617 feet. Stanolind Oil & Gas Co. and others' No. 7 H. Keys, top sand 3,536 feet, initial production 47 bbls. in one-quarter hour through 1½-inch tubing choke, total depth 3,631 feet. Sun Oil Co.'s No. 8 J. C. Gray, top sand 3,607 feet, initial production 30 bbls. in one hour through tapered tubing, total depth 3,527 feet; No. 5-B A. Tooke, top sand 3,587 feet, initial production 27 bbls. in one-half hour through tapered tubing, total depth 3,663 feet; No. 3 M. Thomas, top sand 3,454 feet, initial production 45 bbls. per hour through tapered tubing, total depth 3,510 feet.

The Texas Company's No. 3 T. W. Lee, top sand 3,550 feet, initial production 100 bbls. per hour through 2-inch open tubing, total depth 3,565 feet. Tidal Oil Co.'s No. 4 C. C. Clemmons, top sand 3,609 feet, initial production 18 bbls. in 10 minutes through 2-inch open tubing, total depth 3,625 feet; No. 8 A. Davis, top sand 3,555 feet, initial production 24 bbls. in 10 minutes through 2-inch open tubing, total depth 3,590 feet. Yount Lee Oil Co.'s No. 6-A S. E. Flenton, top sand 3,564 feet, initial production 71 bbls. per hour through eleven-sixteenths-inch tubing choke, total depth 3,567 feet; No. 5 P. Hopkins, top sand 3,490 feet, initial production 86 bbls. per hour through eleven-sixteenths-inch tubing choke, total depth 3,510 feet.

South Gregg County

Acme Oil Co.'s No. 1 J. S. Elder, top sand 3,519 feet, initial production 35 bbls. per hour through open tubing, total depth 3,580 feet. J. S. Beard's No. 3 E. Muckelroy, top sand 3,602 feet, initial production 35 bbls. in one-half hour through 2-inch open tubing, total depth 3,616 feet. Empire Gas & Fuel Co.'s No. 3 E. Muckelroy, top sand 3,531 feet, initial production 40 bbls. in one-quarter hour through 2-inch open tubing, total depth 3,570 feet.

Gulf Production Co.'s No. 12 C. Brown, top sand 3,621 feet, initial production 82 bbls. per hour through three-quarters-inch tubing choke, total depth 3,641 feet; No. 13 C. Brown, top sand 3,504 feet, initial production 87 bbls. per hour through three-quarters-inch tubing choke, total depth 3,517 feet; No. 10 M. T. Cole, top sand 3,524 feet, initial production 82 bbls. per hour through three-quarters inch tubing choke, total depth 3,536 feet; No. 32 Hilburn Estate, top sand 3,550 feet, initial production 78 bbls. per hour through three-quarters-inch tubing choke, total depth 3,565 feet; No. 33 Hilburn, top sand 3,551 feet, initial production 72 bbls. per hour through three-quarters-inch tubing choke, total depth 3,564 feet; No. 37 Hilburn Estate, top sand 3,551 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,564 feet; No. 7 R. H. Still, top sand 3,551 feet, top Georgetown lime 3,634 feet, top Austin chalk 3,392 feet, dry and abandoned, total depth 3,653 feet; No. 7 C. Strong, top sand 3,685 feet, initial production 72 bbls. per hour through three-quarters-inch tubing choke, total depth 3,622 feet.

Harther Oil Co.'s No. 1 Roy Laird, top sand 3,551 feet, initial production 90 bbls. per hour through 1-inch tubing choke, total depth 3,596 feet. Jones & O'Brien's No. 2 M. Prothro, top sand 3,638 feet, initial production 120 bbls. per hour through 2½-inch tubing choke, total depth 3,669 feet. J. E. Mabee's (Deaner and others) No. 1 M. T. Cole, top sand 3,537 feet, initial production 100 bbls. in one-half hour through open tubing, total depth 3,548 feet. Mazda Oil Co.'s No. 3 L. Butts, top sand 3,643 feet, initial production 17 bbls. per hour through three-eighths-inch tubing choke, total depth 3,644 feet. Selby and Lewis' No. 4 M. T. Cole, top sand 3,530 feet, initial production 145 bbls. per hour through 2-inch tubing, total depth 3,564 feet.

Shell Petroleum Corp.'s No. 6-A J. Douglas, top sand 3,603 feet, initial production 18 bbls. in one-half hour through open tubing, total depth 3,612 feet; No. 5 Nellie Jones, top sand 3,556 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,623 feet. H. K. Spear and others' No. 1 J. M. Dickson, top sand 3,523 feet, initial production 50 bbls. in 12 hours pumping, total depth 3,610 feet. Sun Oil Co.'s No. 4 C. Brown, top sand 3,559 feet, initial production 54 bbls. per hour through open 2-inch tubing, total depth 3,615 feet. Tidal Oil Co.'s No. 7 Hughey-Ross, top sand 3,525 feet, initial production 72 bbls. per hour through three-quarters-inch tubing choke, total depth 3,550 feet; No. 6 (or 7-C) Strong, top sand 3,647 feet, initial production 55 bbls. in one-half hour through 2-inch open tubing, total depth 3,659 feet. M. K. Towns' No. 3 Griffin Davis, top sand 3,614 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,624 feet. Weaver-Crim's No. 8 Ben Laird, top sand 3,595 feet, initial production 150 bbls. per hour through 2½-inch open tubing, total depth 3,620 feet. Reserve Petroleum Corp.'s No. 3 Rose Brown, top sand 3,567 feet, initial production 40 bbls. per hour through 1½-inch tubing choke, total depth 3,585 feet. Zenith Oil Co.'s No. 2 Clayburn, top sand 3,729 feet, initial production 20 bbls. per hour through open tubing, total depth 3,737 feet.

North Rusk County

Gulf Production Co.'s No. 6-B C. E. Christian, top sand 3,679 feet, initial production 52 bbls. per hour through three-quarters-inch tubing choke, total depth 3,683 feet. Houze and Wilder's No. 1 Reddic, top sand 3,635 feet, initial production 88 bbls. per hour through 1-inch tubing choke, total depth 3,670 feet. Humble Oil & Refining Co.'s No. 5-A J. T. Sexton, top sand 3,635 feet, initial production 31 bbls. per hour through three-quarters-inch tubing choke, total depth 3,706 feet. Louisiana Oil & Refining Co.'s No. 8 Jernigan, top sand 3,654 feet, initial production 32 bbls. in one-quarter hour through 2½-inch tubing choke, total depth 3,685 feet. Magnolia Petroleum Co.'s No. 5 S. E. Brox, top sand 3,630 feet, initial production 43 bbls. in five minutes through 1-inch tubing choke on 2 and 3-inch line on casing, total depth 3,658 feet.

Sinclair Prairie Oil Co.'s No. 3-B Major Kennedy, top sand 3,623 feet, initial production 21 bbls. in one-quarter hour through 2½-inch open tubing, total depth 3,702 feet. M. Rubin's No. 2 A. Holt, top sand 3,642 feet, initial production 22 bbls. per hour through open 2-inch tubing, total depth 3,738 feet.

South Rusk County

Bowser and Beckett's No. 2 Wheelis, top sand 3,777 feet, initial production 120 bbls. per hour through open tubing, total depth 3,617 feet. Bridwell Oil Co.'s No. 2 Samp Stone, top sand 3,617 feet, initial production 155 bbls. per hour through 2½-inch open tubing, total depth 3,636 feet. Conservative Oil Co.'s No. 6 Lizzie Harmon, total depth 2,445 feet; skidded derrick 15 feet west for No. 6-A. DeArmand Brothers' No. 1 John Bell, top sand 3,752 feet, initial production 75 bbls. in one-half hour through 2-inch open tubing, total depth 3,773 feet. Deep Rock Oil Co.'s No. 10-A Stovall, top sand 3,622 feet, initial production 92 bbls. in one-half hour through 2½-inch open tubing, total depth 3,694 feet. East Texas Refining Co.'s No. 2 Howell Barksdale, top sand 3,679 feet, initial production 35 bbls. per hour through open tapered tubing, total depth 3,710 feet; No. 2 Ras Pool, top sand 3,709 feet, initial production 45 bbls. per hour through open tapered tubing, total depth 3,739 feet.

Fair and Thompson's No. 2 Wiley-Freeman, top sand 3,565 feet, initial production 40 bbls. per hour through open 2-inch tubing, total depth 3,640 feet. George Greer's No. 1 Calvin Young, top sand 3,668 feet, initial production 50 bbls. in 50 minutes through 2½-inch open

East Central Texas Wildcats

Week Ending July 18

ANDERSON COUNTY

Company, well, farm name, section and block—	Remarks:
Frazier et al's No. 1 H. L. Hudson, 200 ft. from S line and 200 ft. from W line of 196-ac. tract, M. Rionda Sur.	Preparing to spud.
Rosser and Pendleton's No. 1 M. A. Davy, 660 ft. from N line and center of E and W lines of tract and survey, P. G. Adams Sur.	Derrick.
C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,350 ft. from N of S line of survey in S½ of 139-ac. tract, M. Main Sur.	T.D. 1,538 ft.

ANGELINA COUNTY

French et al's No. 1 Abney, 150 ft. from S line and 300 ft. from W line of lease, Antasio Barsta Sur.	Swabbing 1,851 ft.

BOWIE COUNTY

Roy Anderson's No. 1 Dykes, 2 miles W of Texarkana, M. Dykes Sur.	Set csg. 150 ft.
Burnham-Robertson and Greer's No. 1 F. O. Weiss, 350 ft. from N line and 200 ft. from W line of B. H. Williams 80-ac. tract, Jessie Dean Sur.	Drlg. 3,460 ft.

CHEROKEE COUNTY

Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur.	S.D. 1,000 ft.
Davis et al's No. 1 Annie Kelley, 330 ft. from N line and center of E and W lines of 21.4-ac. lease, M. D. L. S. Coy Sur.	Drlg. 2,300 ft.
W. C. Hamilton et al's No. 1 Doctor Jones, 150 ft. from N line and 1,000 ft. from E line of 132-ac. lease, 4 miles SE of Summerfield, J. D. Hamilton Sur.	Location.
Mid-Kansas Oil & Gas Co.'s No. 2 H. D. Kelley, 330 ft. from S line and 1,315 ft. from E line of 36.3-ac. tract, M. De Los Santos Coy Sur.	Drlg. 3,690 ft.
Patton-Oliver and Murray's No. 1-A Eddie Toole, skidded derrick 20 ft. W of No. 1 Toole, M.D.L.S. Coy Sur.	Derrick.
Rayburn and Glassco's No. 1 Annie Kelley, 1,714 ft. S and 2,310 ft. W of NW cor. of Pilot Oil Co.'s Kelley 10-ac. lease, M. De Los Santos Coy Sur.	Derrick.
William A. Stone's No. 1 J. T. Perkins, 200 ft. from NW cor. of lease, Thomas Stanford Sur., 3 miles S of Ponta	S.D. 2,250 ft.; (corrected).
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur.	Drlg. 2,900 ft.

(Continued on Page 42)

tubing, total depth 3,717 feet. Gulf Production Co.'s No. 13 G. G. Turner, top sand 3,719 feet, initial production 85 bbls. per hour through three-quarters-inch tubing choke, total depth 3,731 feet; No. 16 G. G. Turner, top sand 3,739 feet, initial production 90 bbls. per hour through three-quarters-inch tubing choke, total depth 3,748 feet.

Humble Oil & Refining Co.'s No. 5-C Ida Holt, top sand 3,765 feet, initial production 46 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,818 feet; No. 3 E. W. Naulls, top sand 3,561 feet, initial production 15 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,665 feet; No. 6 Pilgreen, top sand 3,674 feet, initial production 41 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,773 feet; No. 15 W L. Price, top sand 3,721 feet, initial production 43 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,803 feet; No. 9-B R. E. L. Silvey, top sand 3,649 feet, initial production 18 bbls. per hour through three-quarters-inch tubing choke, total depth 3,762 feet; No. 2-B Virginia Turner, top sand 3,727 feet, initial production 49 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,747 feet. H. L. Hunt's No. 2 Barksdale, top sand 3,670 feet, initial production 50 bbls. in 25 minutes through open tubing, total depth 3,748 feet; No. 7-B Bradford, top sand 3,572 feet, initial production 50 bbls. in four hours pumping, total depth 3,670 feet; No. 3 R. F. Russell, top sand 3,728 feet, initial production 50 bbls. in 20 minutes through open tubing, total depth 3,800 feet. Jackson, Wise and Sneeden's No. 4 J. B. Wilson, top sand 3,640 feet, initial production 65 bbls. in 20 minutes through 2½-inch open tubing, total depth 3,670 feet.

Mid-Kansas Oil & Gas Co.'s No. 4 M. C. DeGuerin, top sand 3,669 feet, initial production 120 bbls. per hour through open tubing on 2-inch lead, total depth 3,697 feet; No. 10 W. T. Grissom, top sand 3,633 feet, initial production 130 bbls. per hour through 2½-inch open tubing on 2-inch lead, total depth 3,664 feet; No. 12 W. T. Grissom, top sand 3,619 feet, initial production 120 bbls. per hour through open tubing, on 2-inch lead, total depth 3,651 feet; No. 3 Jim Lumsford, top sand 3,627 feet, initial production 108 bbls. per hour through 2½-inch open tubing, total depth 3,678 feet; No. 4 J. F. Mason, top sand 3,652 feet, initial production 65 bbls. per hour through 2½-inch open tubing on 2-inch lead, total depth 3,713 feet; No. 4 Mills, Joe, top sand 3,626 feet, initial production 70 bbls. per hour through 2½-inch open tubing, on 2-inch lead, total depth 3,726 feet; No. 4 M. A. Price, top sand 3,590 feet, initial production 54 bbls. per hour through 2½-inch open tubing, on 2-inch lead, total depth 3,645 feet; No. 6 M. A. Price, top sand 3,560 feet, initial production 86 bbls. per hour through 2½-inch open tubing, on 2-inch lead, total depth 3,625 feet. Oil Properties Corp.'s No. 1 E. B. Alford, top sand 3,607 feet, initial production 5 bbls. per hour through open 2-inch tubing, total depth 3,660 feet.

Stanolind Oil & Gas Co.'s No. 2-A Shuler, top sand 3,640 feet, initial production 15 bbls. in 20 minutes through one-half-inch tubing choke, total depth 3,724 feet. Stanolind and Pure Oil companies' No. 8 R. J. Burton, top sand 3,579 feet, initial production 42½ bbls. in one-quarter hour through open tubing, total depth 3,651 feet; No. 4 W. H. Siler, top sand 3,587 feet, initial production 50 bbls. in 28 minutes through 1½-inch tubing choke, total depth 3,631 feet; No. 10 W. H. Siler, top sand 3,591 feet, initial production 50 bbls. in 28 minutes through 2½-inch open tubing, total depth 3,633 feet. Sun Oil Co.'s No. 2 L. Cooper, top sand 3,600 feet, initial production 35 bbls. per hour through open tapered tubing, total depth 3,627 feet; No. 3 Ellen Till, top sand 3,585 feet, initial production 25 bbls. per hour through open tapered tubing, total depth 3,612 feet. A. M. Sutton's No. 1 Mundy, location abandoned. A. M. Sutton's No. 1 J. B. Seymore, location abandoned.

The Texas Company's No. 2 Allen Kersh, top sand 3,630 feet, initial production 108 bbls. per hour through open 2-inch tubing, total depth 3,635 feet; No. 4 J. W. Turner, top sand 3,680 feet, initial production 90 bbls. per hour through open tubing, total depth 3,785 feet. Maxim Oils, Inc.'s No. 1 Worrell, top sand 3,590 feet, initial production 35 bbls. in one-quarter hour through open tubing, total depth 3,640 feet.

Smith County

Humble Oil & Refining Co.'s No. 5 M. C. Thompson, top sand 3,633 feet, initial production 38 bbls. in 20 minutes through three-fourths inch tubing choke, total depth 3,638 feet. Mid-Kansas Oil & Gas Co.'s No. 26 M. M. Cross, top sand 3,622 feet, initial production 120 bbls. per hour through open 2½-inch tubing, total depth 3,631 feet. Sun Oil Co.'s No. 5-A A. V. Ritch, top sand 3,656 feet, initial production 42 bbls. per hour through open tapered tubing, total depth 3,661 feet. The Texas Company's No. 7-A Jarvis, top sand 3,617 feet, initial production 92 bbls. per hour through 2-inch tubing, total depth 3,627 feet. Johnson & Owens' No. 4 John Johnson, top sand 3,722 feet, initial production 55 bbls. in one-half hour through 2½-inch tubing, total depth 3,726 feet. J. E. Lucas' No. 1 Henry Jackson, location abandoned, total depth 150 feet.

Upshur County

Atlantic Oil & Production Co.'s No. 7 Porter, top sand 3,679 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,693 feet. Conservative Oil Co.'s No. 1 A. O. Phillips, top sand 3,600 feet, initial production 40 bbls. per hour through open 2-inch tubing, total depth 3,710 feet. Magnolia Petroleum Co.'s No. 1 O. F. Smith, top sand 3,600 feet, initial production 100 bbls. per hour through 2-inch open tubing, total depth 3,630 feet. Rancho Oil Co.'s No. 9 J. K. Edwards, top sand 3,681 feet, initial production 25 bbls. per hour through 2½-inch open tubing, total depth 3,697 feet. Roy A. Reynolds' No. 1 East Mountain Church, top sand 3,717 feet, initial production 60 bbls. per hour through 2½-inch open tubing, total depth 3,721 feet. Service Drilling & Royalty Co.'s No. 1 J. W. Free, top sand 3,665 feet, initial production 30 bbls. per day by heads, total depth 3,680 feet. Simms and Buttram's No. 9 Nicholson, top sand 3,644 feet, initial production 80 bbls. per hour through open 2-inch tubing, total depth 3,655 feet.

Stanolind Oil & Gas Co.'s No. 1-C Everett, top sand 3,618 feet, initial production 60 bbls. in one-half hour through 1½-inch tubing choke, total depth 3,626 feet. Steen Drilling Co.'s No. 1 A. Loden, top sand 3,687 feet, initial production 145 bbls. per hour through open 2-inch tubing, total depth 3,716 feet. C. L. Wyckliffe and others' No. 1 M. E. Florence, top sand 3,754 feet, initial production 50 bbls. in 41 minutes through 2-inch open tubing, total depth 3,768 feet.

WILDCAT COMPLETIONS

Bowie County

Lee Timberlake's No. 1 C. E. McElwee, dry and abandoned, total depth 3,450 feet.

Franklin County

T. E. Mayberry's No. 1 M. L. Edwards, abandoned location.

Harrison County

Lloyd Oil Corp.'s No. 1 F. Timmons, dry and abandoned, total depth 4,035 feet.

Nacogdoches County

Taylor-Vaughn's No. 1 Dickson-Greer, dry and abandoned, total depth 3,755 feet.

Van Zandt County

Pure Oil Co.'s No. 3 H. P. Tunnell, initial production 100 bbls., total depth 2,966 feet; No. 3 Mrs. N. R. Blake, initial production first 24-hour gauge after choked for proration 25 bbls., total depth 2,960 feet.

Week Ending July 9

COMPLETIONS IN EAST TEXAS

Cherokee County

Pilot Oil Co.'s No. 1 Annie Kelly, top sand 3,679 feet, initial production 20 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,686 feet.

North Gregg County

Henry L. Allen's No. 1 Bonner Estate, top sand 3,568 feet, initial production 40 bbls. through 2½-inch tubing choke, total depth 3,585 feet. Amerada Petroleum Corp.'s No. 7 L. R. Hearne, top sand 3,507 feet, initial production 60 bbls. per hour through 2-inch open tubing, total depth 3,516 feet. Arkansas Fuel Oil Co.'s No. 5 T. T. Rembert, top sand 3,460 feet, initial production 21 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,480 feet; No. 5 Tuttle, top sand 3,569 feet, initial production 30 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,598 feet. Atlantic Oil & Production Co.'s No. 9-A Burnside, top sand 3,514 feet, initial production 21 bbls. in one hour through tapered tubing, total depth 3,535 feet; No. 9-B Burnside, top sand 3,475 feet, initial production 21 bbls. per hour through tapered tubing, total depth 3,518 feet; No. 19 Judge, top sand 3,507 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,523 feet; No. 5 H. Pritchard, top sand 3,502 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,530 feet.

Atlantic and Sun Oil Co.'s No. 8 M. Hays, top sand 3,505 feet, initial production 22 bbls. in one hour through tapered tubing, total depth 3,559 feet. Dean and Atkinson's No. 1 A. V. Bacle, top sand 3,638 feet, initial production 85 bbls. per hour through three-fourths-inch tubing choke, total depth 3,670 feet. East Texas Refining Co.'s No. 3 George Anderson, top sand 3,499 feet, initial production 31 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,549 feet. Empire Gas & Fuel Oil Co.'s No. 5 T. W. Lee, top sand 3,530 feet, initial production 35 bbls. in one-fourth hour through 2½-inch tubing, total depth 3,562 feet. Foshee and others' No. 1 fee, top sand 3,680 feet, initial production 38 bbls. in one-fourth hour through open 2-inch tubing, total depth 3,685 feet. Alexander and Goldsmith's No. 1 Cobb Heirs, top sand 3,517 feet, initial production 80 bbls. in one hour through three-fourths-inch tubing choke, total depth 3,566 feet. Gregg Oil Co.'s No. 1-G T.&P.R.R., top sand 3,563 feet, initial production 88 bbls. in one hour through 1-inch tubing choke, total depth 3,603 feet.

Gulf Production Co.'s No. 13 Judge, top sand 3,500 feet, initial production 80 bbls. in one hour through three-fourths-inch tubing choke, total depth 3,523 feet; No. 11 M. O. Sheppard, top sand 3,479 feet, initial production 80 bbls. per hour through three-fourths-inch tubing choke, total depth 3,508 feet. H. Hanbury and others' No. 1 Victory, top sand 3,621 feet, initial production 25 bbls. in one-fourth hour through three-fourths-inch tubing choke, total depth 3,643 feet. Humble Oil & Refining Co.'s No. 2 H. Castleberry, top sand 3,438 feet, initial production 76 bbls. per hour through three-fourths-inch tubing choke, total depth 3,470 feet; No. 3 Mary Wells, top sand 3,654 feet, initial production 69 bbls. per hour through three-fourths-inch tubing choke, total depth 3,672 feet. B. K. Isaac's No. 3 T. B. Harris, top sand 3,508 feet, initial production 65 bbls. per hour through 2-inch open tubing, total depth 3,518 feet. Kewanee Oil Co.'s No. 8 fee, top sand 3,581 feet, initial production 40 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,626 feet. H. Key and others' No. 1 fee, top sand 3,540 feet, initial production 50 bbls. in one-half hour through 1-inch tubing choke, total depth 3,556 feet.

Magnolia Petroleum Co.'s No. 5 E. H. Brawley, top sand 3,496 feet, initial production 136 bbls. per hour through open 2-inch tubing, total depth 3,520 feet. Manson Oil Co.'s No. 3 Barrett, top sand 3,670 feet, initial production 70 bbls. in one-half hour through open 2-inch tubing, total depth 3,685 feet. Selby Oil & Gas Co.'s No. 3 A. Miller, top sand 3,577 feet, initial production 47 bbls. in one-half hour through 1½-inch tubing choke, total depth 3,604 feet; No. 6-B Snavely, top sand 3,557 feet, initial production 59 bbls. per hour through three-fourths-inch tubing choke, total depth 3,580 feet. Simms and Stanolind Oil & Gas Co.'s No. 14-B J. J. Flewellen, top sand 3,668 feet, initial production 80 bbls. per hour through open 2-inch tubing, total depth 3,675 feet. Sinclair Prairie Oil Co.'s No. 7-A J. W. Akins, top sand 3,575 feet, initial production 50 bbls. in one-fourth hour through 2½-inch open tubing, total depth 3,610 feet. Sun Oil Co.'s No. 6 J. T. Loden, top sand 3,678 feet, initial production 25 bbls. per hour through tapered tubing, total depth 3,694 feet.

Many Records Will Be Set in Order For Steel Pipe For Hoover Dam

The United States Government, Department of the Interior, Bureau of Reclamation, has just awarded a $10,908,000 contract to the Babcock & Wilcox Co., 85 Liberty Street, New York, for the fabrication and installation of the welded plate-steel outlet pipes for the hydraulic power and flood control tunnels at Hoover Dam. The contract involves such unusual features as the fabrication of the largest diameter pipes ever constructed, from plates about 3 inches thick and the erection of a plant, built solely for the purpose, on the Federal Reservation near the dam. The total length of the pipes to be constructed exceeds 12,000 feet with variations in diameter from 8½ to 30 feet.

A complete fabricating plant will be built at the site of the work on account of the large diameter of the pipe sections, which cannot be transported over any existing railroad lines. Each section of 30-foot pipe will require six steel plates of the largest size that can be rolled with existing steel mill equipment. Each plate, weighing about 25 tons, will measure approximately 12 by 35 feet, and two such plates are all that can be shipped from the steel mill to the fabricating plant on one railroad car. Three of these plates, after being formed and welded together, will make one piece of 30-foot diameter pipe about 12 feet long, and two pieces joined together in the fabricating shop will constitute one section weighing about 150 tons, exceeding the weight of many railroad locomotives.

From the field plant, the sections of pipe must be transported to the rim of the canyon on carriages comparable in capacity with those used for moving the heaviest artillery or coast defense guns. From this point each section will be transported across the canyon and lowered 1,000 feet, by a cable way, to the entrances to the several tunnels. This cable way will have more than double the capacity of any heretofore used for such purposes and will have a span 1,400 feet long and will be supported on steel towers 150 feet high.

All sections of pipe will be tested in various ways, one of the tests being searching X-ray examinations of the welded seams. While the Babcock & Wilcox Co. has for some time employed X-ray apparatus for the purpose of determining the quality of welded joints, it is interesting to note that the quantity of X-ray film which will be used for this work will exceed the total of all X-ray films produced to date for industrial purposes.

This is the second largest contract of its kind ever awarded by the Department of the Interior, and makes available to the steel industry about 55,000 tons of plate steel, the largest tonnage actively considered so far this year.

Standard Oil of Kansas' No. 1 J. W. Fuller, top sand 3,600 feet, initial production 56 bbls. per hour through 1-inch tubing choke, total depth 3,630 feet.

Stanolind Oil & Gas Co.'s No. 4 Meadows, top sand 3,685 feet, initial production 34 bbls. in one-fourth hour through 1½-inch tubing, total depth 3,715 feet. Stanolind-Simms and others' No. 6 Keys, top sand 3,537 feet, initial production 52 bbls. in one-fourth hour through 1½-inch tubing choke, total depth 3,606 feet. Sun Oil Co.'s No. 7 J. C. Gray, top sand 3,600 feet, initial production 25 bbls. in two hours through 2½-inch tubing, swabbing, total depth 3,687 feet. Superior Oil Co.'s No. 6-A Pritchard, top sand 3,514 feet, initial production 45 bbls. in one-fourth hour through 2½-inch tubing, total depth 3,565 feet. J. O. Whittington and others' No. 2 A. Boyce, top sand 3,620 feet, initial production 35 bbls. in one-fourth hour through 1-inch tubing choke, total depth 3,685 feet; No. 4 R. Christian, top sand 3,595 feet, initial production 48 bbls. in one-fourth hour through 2-inch open tubing, total depth 3,645 feet. Yount Lee Oil Co.'s No. 5 J. Flemster, top sand 3,569 feet, initial production 76 bbls. per hour through eleven-sixteenths-inch tubing choke, total depth 3,689 feet; No. 6 F. Jones, top sand 3,569 feet, initial production 96 bbls. per hour through eleven-sixteenths-inch tubing choke, total depth 3,589 feet.

South Gregg County

Gulf Production Co.'s No. 14 Culver, top sand 3,498 feet, initial production 67½ bbls. in six hours through open tubing, total depth 3,571 feet; No. 8 A. Muckelroy, top sand 3,557 feet, initial production 72 bbls. per hour through tthree-fourths-inch tubing choke, total depth 3,567 feet; No. 1 C. L. Still, top sand 3,513 feet, initial production 20 bbls. per hour through open tubing, total depth 3,545 feet; No. 6 R. H. Still, top sand 3,513 feet, initial production 30 bbls. per hour through three-fourths-inch tubing, total depth 3,545 feet; No. 5 C. Strong, initial production 82 bbls. per hour through three-fourths-inch tubing choke; No. 6 C. Strong, initial production 82 bbls. per hour through three-fourths-inch tubing choke. J. J. Petroleum Corp.'s No. 1 Cumi Wells, initial production 62 bbls. per hour through three-fourths-inch tubing choke. Magnolia Petroleum Co.'s No. 1 R. B. Wells, top sand 3,701 feet, initial production 112 bbls. per hour through 1-inch tubing choke, total depth 3,710 feet.

Producers Investment Co.'s No. 1 R. H. Rowland, top sand 3,544 feet, initial production 28 bbls. per hour through open 2-inch tubing, total depth 3,568 feet. Republic Production Co.'s No. 6 Clayton, top sand 3,583 feet, initial production 25 bbls. in 10 minutes through 1-inch tubing choke, total depth 3,602 feet.

Frank Russell's No. 1 Crim, top sand 3,535 feet, initial production 25 bbls. per hour through open tubing, total depth 3,547 feet. Shell Petroleum Corp.'s No. 1-B B. F. Laird, top sand 3,580 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,624 feet. J. B. Sowell's No. 1 W. P. Luce, top sand 3,560 feet, initial production 75 bbls. per hour through three-fourths-inch tubing choke, total depth 3,565 feet. Standard Oil of Kansas' No. 3 J. A. Knowles, top sand 3,603 feet, initial production 34 bbls. in one-fourth hour through open tubing, total depth 3,610 feet.

Sun Oil Co.'s No. 10 M. T. Cole, top sand 3,519 feet, initial production 59 bbls. per hour through tapered tubing, total depth 3,560 feet; No. 7 G. Reese, top sand 3,702 feet, initial production 89 bbls. per hour through 2-inch tubing, total depth 3,715 feet; No. 4 J. E. Rollins, top sand 3,618 feet, initial production 54 bbls. per hour through tapered tubing, total depth 3,665 feet; No. 5 M. Strong, top sand 3,608 feet, initial production 53 bbls. per hour through tapered tubing, total depth 3,648 feet. Arkansas Drilling Co.'s No. 1 A. A. King, top sand 3,682 feet, initial production 60 bbls. per hour through three-fourths-inch tubing choke, total depth 3,688 feet. Sam K. Vierson's No. 3 Muckelroy, top sand 3,528 feet, initial production 75 bbls. per hour through three-fourths-inch tubing choke, total depth 3,559 feet; Wells and Gann's No. 2 G. Johnson, top sand 3,535 feet, initial production 25 bbls. per hour through 1-inch tubing choke, total depth 3,586 feet.

North Rusk County

East Texas Refining Co.'s No. 1 Robertson, top sand 3,596 feet, initial production 50 bbls. in 20 minutes through open tubing, total depth 3,640 feet; No. 3 S. B. Wills, top sand 3,602 feet, initial production 25 bbls. in 10 minutes through open tubing, total depth 3,607 feet. G. & A. Oil Co.'s No. 1 W. Robinson, top sand 3,578 feet, initial production 35 bbls. per hour through open tubing, total depth 3,638 feet. Gulf Production Co.'s No. 9-A C. E. Christian, top sand 3,587 feet, initial production 80 bbls. per hour through three-fourths-inch tubing choke, total depth 3,622 feet; No. 7 M. E. Peterson, top sand 3,613 feet, initial production 90 bbls. per hour through three-fourths-inch tubing choke, total depth 3,637 feet. Humble Oil & Refining Co.'s No. 58 L. D. Crim, top sand 3,601 feet, initial production 150 bbls. per hour through three-fourths-inch tubing choke, total depth 3,615 feet; No. 8 P. R. Guerin, top sand 3,700 feet, initial production 41 bbls. in one-half hour through three-fourths-inch tubing choke, total depth 3,738 feet. Kirby Petroleum Co.'s No. 4 Reddick, top sand 3,610 feet, initial production 50 bbls. in one-half hour through open tubing, total depth 3,710 feet.

L. G. Priest's No. 2 Mayfield, top sand 3,665 feet, initial production 31 bbls. in 10 minutes through 2-inch open tubing, total depth 3,694 feet. E. H. Moore's No. 2 W. P. Moore, top sand 3,664 feet, initial production 35 bbls. in one-half hour through open tubing, total depth 3,669 feet. George Pipes' No. 1 J. R. Irion, top sand 3,816 feet, initial production 51 bbls. per day through pinched tubing, total depth 3,817 feet. Shell Petroleum Corp.'s No. 2-A T. Wells, initial production 4½ bbls. by heads in one-half hour, total depth 3,746 feet. Shoreline Oil Co.'s No. 2 Brightwell, top sand 3,662 feet, initial production 80 bbls. per day pinched, total depth 3,672 feet. W. B. Tucker's No. 4 D. Wills, top sand 3,595 feet, initial production 75 bbls. per hour through open tubing, total depth 3,602 feet. Uscan Oil Co.'s No. 1 L. Moore, top sand 3,590 feet, initial production 25 bbls. in one-fourth hour through open tubing, total depth 3,643 feet.

South Rusk County

Jim Cloud's No. 6 W. F. Neal, top sand 3,710 feet, initial production 37 bbls. through 1-inch tubing choke, one-fourth hour, total depth 3,720 feet. Barney Cockburn's No. 4 Green, top sand 3,738 feet, initial production 30 bbls. in one-half hour through 1-inch tubing choke, total depth 3,742 feet. Duncan and Holt's No. 3 R. A. Motley, top sand 3,811 feet, initial production 60 bbls. in one-half hour through open tubing, total depth 3,813 feet. Fair and Thompson's No. 2-A W. E. Wiley, top sand 3,598 feet, initial production 35 bbls. per hour through 2-inch open tubing, total depth 3,660 feet. Falcon Oil Co.'s No. 1 McCord, top sand 3,587 feet, initial production 15 bbls. per hour through open 2-inch tubing, total depth 3,620 feet. Golding and Murchinson's No. 4 Kinney, top sand 3,635 feet, initial production 65 bbls. per hour through open 2-inch tubing, total depth 3,696 feet.

Gulf Production Co.'s No. 3-A Walter Shaw, top sand 3,704 feet, initial production 86 bbls. per hour through three-fourths-inch tubing choke, total depth 3,712 feet; No. 16 G. G. Turner, top sand 3,777 feet, initial production 45 bbls. per hour through three-fourths-inch tubing choke, total depth 3,786 feet. Humble Oil & Refining Co.'s No. 4 R. A. Barksdale, top sand 3,782 feet, initial production 27 bbls. in one-half hour through three-fourths-inch tubing, total depth 3,787 feet; No. 12 W. A. Mullikine, top sand 3,651 feet, initial production 16 bbls. in one-half hour through three-fourths-inch tubing choke, total depth 3,787 feet; No. 3-C R. E. L. Silvey, top sand 3,675 feet, initial production 27 bbls. in one-fourth hour through three-fourths-inch tubing.

International Oil Co.'s No. 2 Pinkston, top sand 3,634 feet, initial production 30 bbls. in one-half hour through open tubing, total depth 3,684 feet. Lion Oil & Refining Co.'s No. 8-B Brooks, top sand 3,625 feet, initial production 15 bbls. in one-fourth hour through open 2-inch tubing, total depth 3,724 feet. Mid-Kansas Oil & Gas Co.'s No. 5 H. C. and G. W. Burton, top sand 3,660 feet, initial production 88 bbls. per hour through open 2½-inch tubing, total depth 3,701 feet; No. 17 M. M. Cross, top sand 3,597 feet, initial production 80 bbls. per hour through open 2½-inch tubing, total depth 3,618 feet; No. 19 M. M. Cross, top sand 3,772 feet, initial production 40 bbls. per hour through open 2½-inch tubing, total depth 3,779 feet. Sinclair Prairie Oil Co.'s No. 12 D. Ledbetter, top sand 3,609 feet, initial production 35 bbls. in 13 minutes through 2½-inch tubing, total depth 3,623 feet; No. 5 McCord, top sand 3,587 feet, initial production 20 bbls. in one-fourth hour through open tubing, total depth 3,661 feet.

Stanolind Oil & Gas Co.'s No. 1 W. H. McCord, top sand 3,566 feet, initial production 15 bbls. per hour through 2½-inch open tubing, total depth 3,652 feet; No. 1 Willie Wooley, top sand 3,541 feet, initial production 8 bbls. per hour through 2½-inch open tubing, total depth 3,658 feet. Tulsa Oil Co.'s No. 3 M. L. Thompson, top sand 3,626 feet, initial production 35 bbls. in one-fourth hour through 2½-inch open tubing, total depth 3,636 feet. Ward Oil Co.'s No. 13 Thrash, top sand 3,763 feet, initial production 75 bbls. per hour through 2-inch open tubing, total depth 3,800 feet. Nat Weisman's No. 1 Thrash, top sand 3,705 feet, initial production 75 bbls. in one-half hour through 2-inch open tubing, total depth 3,760 feet. Clint Wood Drilling Co.'s No. 3 Irwin, top sand 3,610 feet, initial production 51 bbls. in eight hours through one-sixteenth inch tubing choke, five hours, total depth 3,812 feet.

Mid-Kansas Oil & Gas Co.'s No. 2 W. T. Grissom, top sand 3,664 feet, initial production 96 bbls. per hour through open 2½-inch tubing, total depth 3,672; No. 4 W. T. Grissom, top sand 3,614 feet, initial production 86 bbls. per hour through open 2½-inch tubing, total depth 3,662 feet; No. 6 W. T. Grissom, top sand 3,638 feet, initial production 98 bbls. per hour through open 2½-inch tubing on 2-inch lead, total depth 3,662 feet; No. 3 G. W. Moore, top sand 3,603 feet, initial production 96 bbls. per hour through open 2½-inch tubing on 2-inch lead, total depth 3,669 feet. Dyck Oil Co.'s No. 1 Bell, top sand 3,804 feet, initial production 87 bbls. in one-half hour through open tubing, total depth 3,814 feet. Sinclair Prairie Oil Co.'s No. 31 Kinney, top sand 3,646 feet, initial production 35 bbls. in one-fourth hour through open 2½-inch tubing, total depth 3,765 feet; No. 7 Ledbetter, top sand 3,605 feet, initial production 115 bbls. per hour through open 2½-inch tubing, total depth 3,642 feet; No. 11 Ledbetter, top sand 3,580 feet, initial production 33 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,618 feet.

Smith County

C. B. Bunte, Inc., and others' No. 3-B Jarvis, top sand 3,704 feet, initial production 48 bbls. in one-half hour through open tubing, total depth 3,706 feet. W. H. Hinton's No. 4 Mayfield, top sand 3,749 feet, initial production 100 bbls. per hour through 1-inch tubing choke, total depth 3,735 feet. Hunt Production Co.'s No. 5-B R. W. Fair, top sand 3,682 feet, initial production 120 bbls. per hour

The Oil Man's Calendar

July

18—Colorado Springs, Colo., committee on production practice, American Petroleum Institute.

22—Colorado Springs, Colo., board of directors meeting, American Petroleum Institute, Broadmoor Hotel.

28-29—Los Angeles, Calif., Pacific Coast regional meeting American Institute of Mining & Metallurgical Engineers.

July-August

July 16 to August 28—Atlantic City, N. J., third American Fair, Atlantic City Auditorium.

August

10—Nashville, Tenn., Tennessee Oil Men's Association, Noel Hotel.

22-26—Denver, Colo., American Chemical Society.

23-26—Spokane, Wash., Pacific Coast Gas Association, Hotel Davenport.

30—Cleveland, Ohio, National Air Races.

30-31—Cleveland, Ohio, Society of Automotive Engineers.

September

10-17—Cleveland, Ohio, Society of Automotive Engineers.

14-16—Atlantic City, N. J., annual meeting, National Petroleum Association.

15-17—Atlantic City, N. J., American Trade Association Executives.

21-23—Philadelphia, Pa., North American Gasoline Tax Conference.

22-23—Chicago, National Association of Motor Bus Operators.

Last week—Columbus, Ohio, Ohio Petroleum Marketers Association.

30-Oct. 1.—Dallas, Tex., American Institute of Mining & Metallurgical Engineers, petroleum division.

October

3-7—Buffalo, N. Y., National Metal Exposition and National Metal Congress, and American Society for Steel Treating.

3-7—Washington, D. C., National Safety Council.

4-6—Toronto, Canada, Society of Automotive Engineers, transportation meeting.

10-14—Atlantic City, N. J., annual convention, American Gas Association.

11-12—Louisville, Ky., Kentucky Petroleum Marketers Association.

(?) —Chicago, Ill., American Society of Mechanical Engineers (fuel division).

November

10—Los Angeles, Calif., California Natural Gasoline Association.

10-12—Atlanta, Ga., Southeastern Economic Conference.

15-17—Houston, Tex., thirteenth annual meeting, American Petroleum Institute.

(?) —Great Falls, Mont., Rocky Mountain Oil and Gas Association, Rainbow Hotel.

December

5—New Orleans, La., tenth annual Asphalt Paving Conference, and Association of Asphalt Paving Technologists.

5-9—New York, N. Y., American Society of Mechanical Engineers.

5-10—New York, N. Y., National Exposition of Power & Mechanical Engineering.

(?) —Great Falls, Mont., Rocky Mountain Oil and Gas Association, Rainbow Hotel.

1933

April

20-21—Cleveland, Ohio, National Petroleum Association, Cleveland Hotel.

through 2-inch open tubing, total depth 3,685 feet. Mid-Kansas Oil & Gas Co.'s No. 21 M. M. Cross, top sand 3,652 feet, initial production 120 bbls. per hour through 2-inch tubing, total depth 3,658 feet; No. 6 J. H. Sharp, top sand 3,645 feet, initial production 92 bbls. per hour through 2½-inch open tubing, total depth 3,650 feet. Sinclair Prairie Oil Co.'s No. 16-A Jarvis, top sand 3,704 feet, initial production 35 bbls. in one-fourth hour through open tubing, total depth 3,710 feet. Stewart Holding, Inc.'s No. 2 McDavid, top sand 3,765 feet, initial production 30 bbls. in 20 minutes through 2-inch open tubing, total depth 3,757 feet. Sun Oil Co.'s No. 4 J. J. Denton, top sand 3,724 feet, initial production 32 bbls. per hour through open tubing, total depth 3,742 feet; No. 10 O. W. Knight, top sand 3,617 feet, initial production 38 bbls. per hour through tapered tubing, total depth 3,628 feet.

Upshur County

Black and Case's No. 2 Burough, top sand 3,675 feet, initial production 60 bbls. per hour through 1-inch tubing choke, total depth 3,702 feet. California Petroleum Corp.'s No. 9 B. Walker, top sand 3,661 feet, initial production 85 bbls. per hour through 2-inch open tubing, total depth 3,675 feet. E. & D. Oil Co.'s No. 4 T. Wells, top sand 3,705 feet, initial production 49 bbls. per hour through 1-inch tubing choke. Humble Oil & Refining Co.'s No. 10 I. D. Smith, top sand 3,628 feet, initial production 70 bbls. per hour through three-fourths-inch tubing choke, total depth 3,643 feet; No. 5 J. M. Smith, top sand 3,649 feet, initial production 14 bbls. in one-fourth hour through three-fourths-inch tubing choke, total depth 3,668 feet. Magnolia Petroleum Co.'s No. 10 Adkins, top sand 3,707 feet, initial production 105 bbls. per hour through 2-inch open tubing, total depth 3,720 feet.

Maddox and others' No. 1 W. Starr, top sand 3,662 feet, initial production 15 bbls. per hour through 1½-inch tubing choke, total depth 3,666 feet. Bob Manziel's No. 1 E. O'Byrne, top sand 3,684 feet, initial production 50 bbls. per hour through 1-inch tubing choke, total depth 3,702 feet. Mudge Oil Co.'s No. 4 S. E. Richardson, top sand 3,690 feet, initial production 75 bbls. per hour through 2½-inch tubing, total depth 3,730 feet. Simms and Buttram's No. 8 W. R. Nicholson, top sand 3,670 feet, initial production 120 bbls. per hour through open casing, total depth 3,676 feet. T. A. Wood's No. 4 Sheppard, top sand 3,662 feet, initial production 32 bbls. in one-fourth hour through 1½-inch tubing choke, total depth 3,679 feet.

West Texas Fields

(Continued from Page 16)

pell Oil Co.'s No. 10 Kemp Kempner, dry and abandoned, total depth 988 feet; No. 1 Wilmot, dry and abandoned, total depth 2,618 feet. Staley Wynne & Co.'s No. 1 Turbeville, dry and abandoned, total depth 1,557 feet. Thomas Mack's No. 1 Karl Jena, dry and abandoned, total depth 683½ feet. United Producers Co.'s No. 1 O'Donohoe, dry and abandoned, total depth 1,651 feet. American Refining Properties' No. 1 Webb, dry and abandoned, total depth 724 feet. Burns and Long's No. 1 Birdwell, dry and abandoned, total depth 1,458 feet. Consolidated Oil Co.'s No. 1 Colgan, dry and abandoned, total depth 1,500 feet. W. B. Hamilton's No. 1 Ikard, oil sand 1,163-68 feet, initial production 15 bbls., total depth 1,168 feet. Luke Hodges and others' No. 1 Fammer, dry and abandoned, total depth 1,552 feet. E. W. Hunt's No. 1 Logan, temporarily abandoned, total depth 1,211 feet. A. P. Nicholson's No. 2 Stinnett oil sand 712-19 feet, initial production 12 bbls., total depth 719 feet. E. H. Sharp's No. 1 Coffield, dry and abandoned, total depth 1,234 feet. Underwood Drilling Co.'s No. 2 Ward, dry and abandoned, total depth 1,102 feet.

Jack County

Brazos River Gas Co.'s No. 1 J. M. Bard, temporarily abandoned location; No. 4 R. R. Clayton, temporarily abandoned. Buttram Petroleum Co.'s No. 1-A Holman, dry and abandoned, total depth 3,870 feet. Thomas Perry's No. 1 J. M. Bal, temporarily abandoned.

Baylor County

Consolidated Oil Co.'s No. 2 Portwood, oil sand 1,386-90 feet, initial production 150 bbs., total depth 1,390 feet.

Wilbarger County

The Texas Company's No. 401 Waggoner, dry and abandoned, total depth 1,088 feet.

Wichita County

W. D. Cline's No. 2 Parker, temporarily abandoned; No. 3 Parker, dry and abandoned, total depth 1,365 feet. Rathke Oil Co.'s No. 1 Jackson, dry and abandoned, total depth 2,650 feet. R. R. Clark's No. 23 Bickley, oil sand 850-70 feet, initial production 30 bbls., total depth 870 feet. George W. Cooper's No. 22 Waggoner Brothers, oil sand 1,312-23 feet, initial production 57 bbls., total depth 1,341 feet. D. D. Golding and Cochran's No. 11 Waggoner Brothers, oil sand 1,283-97½ feet, total depth 1,675 feet, plugged back to 1,296 feet, initial production 2 bbls. W. H. Hammon's No. 2 Mitchell, dry and abandoned, total depth 1,856 feet. D. D. Morgan and Anderson's No. 28 Goetze, dry and abandoned, total depth 996 feet. George J. Proctor's No. 6 Honaker, dry and abandoned, total depth 1,882 feet; No. 7 Honaker, oil sand 850-67 feet, initial production 20 bbls., total depth 867 feet. Schlaffke and Blair's No. 1 Herron, dry and abandoned, total depth 1,080 feet.

Young County

G. C. Gilmore's No. 1 Cox, dry and abandoned, total depth 590 feet. George Mollenkoph's No. 1 Larimore "A," dry and abandoned, total depth 749 feet. Producers and Bridwell's No. 2 Finch, dry and abandoned, total depth 708 feet. Stasney and others' No. 1 Cope, dry and abandoned, total depth 953 feet. W. R. Stewart's No. 2 Carpenter, junked and abandoned, total depth 240 feet. Wooten and Reed's No. 4 Horton, dry and abandoned, total depth 623 feet. Conner and Sons and others' No. 1 Ford, temporarily abandoned, total depth 2,598 feet.

COMPLETIONS IN PANHANDLE DISTRICT

Carson County

The Texas Company's No. 4 Lewis, dry and abandoned, total depth 3,205 feet.

Gray County

Jean Petroleum Corp.'s No. 1 Furneaux, top pay 2,810 feet, initial production 2,000,000 feet of gas, total depth 3,076 feet. Kewanee Oil & Gas Co.'s No. 1 Smith (old well deepened), old total depth 3,178 feet, top pay 3,185 feet, shot 195 quarts 3,185-3,235 feet, initial production 187 bbls.

REVISED RATE AT TEMPLE

TEMPLE, Tex., July 18.—Chester L. May of Dallas, vice president of the Community Natural Gas Co., has presented a revised gas rate with a sliding scale for action by the Temple city council. He said the same rate was being proposed in a large number of towns served by the company. A revised rate encouraging greater use of gas for heating in winter, he said, was necessary if the company was to remain in good condition. The council took the proposed rates under advisement.

GREENVILLE GAS RATE

AUSTIN, Tex., July 18.—The Texas Railroad Commission Monday denied the application of Community Natural Gas for permission to increase the rate on gas to consumers in Greenville, recently refused by the city.

N. J. LEADS IN VENEZUELA

NEW YORK, July 18.—With the acquisition of Lago Oil & Transport Co. and other Venezuelan properties of Pan American Petroleum & Transport Co. (Standard of Indiana), Standard Oil Co. of New Jersey has become the leading producer in Venezuela, displacing the leadership of Royal Dutch-Shell.

May production of Lago and Creole Petroleum, New Jersey subsidiaries, aggregated 4,530,955 bbls., compared with 4,260,182 bbls. by the Royal Dutch-Shell group in Venezuela, comprising Venezuela Oil Concessions, Caribbean Petroleum and Colon Oil. Gulf and British Controlled Oil Fields, Ltd., are the other principal producers in Venezuela.

Wildcat Operations in West Texas

(Continued from Page 16)

Stanolind Oil & Gas Co. et al's No. 1 Todd, 1,370 ft. from N and 1,320 ft. from E, Sec. 67, Blk. UV, G.C.&S.F. Sur. ..... T.D. 512 ft.; cmtd. cave.
The Texas Company's No. 1 B. B. Ingham, 330 ft. from S and 2,330 ft. from E line, Sec. 36¼, I.&G.N. Sur. ..... Drlg. 475 ft.
J. D. Young Co.'s No. 1 Shannon, 330 ft. from N and W, Sec. 35, Blk. 1, G.C.&S.F. Sur. ..... Location.

COKE COUNTY

Mid-Kansas Oil & Gas Co.'s No. 1 Hearn, 980 ft. from S and W, Sec. 271, Blk. 1-A, H.&T.C. Sur. ..... Drlg. 2,980 ft.

DAWSON COUNTY

Albaugh et al's No. 1 Robinson, C NW Sec. 46, Blk. M, E.L.&R.R. Sur. ..... To resume drilling.

ECTOR COUNTY

Broderick & Calvert's No. 1 Parker, 330 ft. from N and W, Sec. 15, Blk. 44, Twp. 2s, T.&P. Sur. ..... Rigging up cable tools.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W, Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur. ..... Rigging up cable tools.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 38, Blk. 43, Twp. 3s, T.&P. Sur. ..... T.D. 3,153 ft.; cmtd. by bit.
H. F. Wurtz' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW Sec. 16, Blk. 46, Twp. 3s, G. M. M.Br.&A. Sur. ..... S.D. 3,605 ft.

EL PASO COUNTY

Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.P. No. 7,247 ..... S.D. 2,760 ft.

FISHER COUNTY

Cranfill & Reynolds' No. 1 George, 400 ft. from N and 330 ft. from E, Sec. 200, Blk. 1, B.B.B.&C. Sur. ..... S.D. 5,816 ft.
Southern Oil Co.'s No. 1 Purdue, 990 ft. from S and E Sec. 202, Blk. B, B.B.&C. Sur. ..... T.D. 1,200 ft.; fishing pipe.

GAINES COUNTY

McElreath et al's No. 1 Sparks, 330 ft. from N and E Sec. 397, Blk. G ..... Top salt 1,900 ft.; drlg. 2,450 ft.

GLASSCOCK COUNTY

B. C. Mann's No. 1 Moore, C NE, Sec. 11, Blk. 35, Twp. 3s, T.&P. Sur. ..... Location; material on ground.

HOWARD COUNTY

American-Maracaibo's No. 5-A Settles, 1,896 ft. from N, 1,884 ft. from W, Sec. 6, Blk. 33, T.&P. Sur. ..... S.D. 185 ft.
Amerada Pet. Corp.'s No. 4 Coffee, 1,300 ft. from N and 1,650 ft. from W, Sec. 22, Blk. 33, Twp. 2s, T.&P. Sur. ..... T.D. 2,086 ft.; running csg.
Amerada Pet. Corp.'s No. 5 Coffee, 2,310 ft. from N and 1,650 ft. from W, Sec. 22, Blk. 33 ..... Rig.
Green O. & R. Co.'s No. 1 Denman, 990 ft. from S and 2,310 ft. from W, Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. ..... Spudded and S.D.
Merrick & Lamb's No. 4 Chalk, 1,650 ft. from N and 990 ft. from W, Sec. 125, Blk. 29, W.&N.W. Sur. ..... Drlg. 940 ft.
Myers et al's No. 1 Denman, 2,305 ft. from S and 2,320 ft. from E Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. ..... S.D. 1,030 ft.
Sinclair-Prairie Oil Co.'s No. 2 Dodge, 2,313 ft. from S and 300 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. Sur. ..... T.D. 2,794 ft.; swabbed 120 bbls. oil daily; running tubing.
Sinclair-Prairie Oil Co.'s No. 3 Dodge, 1,650 ft. from S and 429 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. ... Location.

IRION COUNTY

Apollo Oil Co.'s No. 4 Nutt, 504 ft. from N and 1,562 ft. from W of Subd. No. 6, Gonzales County School Land ..... T.P. 1,462 ft.; T.D. 1,467 ft.; filled 400 ft. with oil in 12 hrs.
Davis et al's No. 1 Suggs, 1,560 ft. from S and 925 ft. from W, Sec. 3,081, Blk. 28, H.&T.C. Sur. ..... S.D. 7,543 ft.
Stanolind Oil & Gas Co.'s No. 1 Williams, 1,320 ft. from S and E of Sec. 1,196, T.T.R.R. Sur. ..... S.D. 7,420 ft.; plugged back to 6,165 ft.

JONES COUNTY

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 42.4-acre tract in G. Martinez Sur. ..... S.D. 1,005 ft.; temp. abnd.
Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of N half of Sec. 39, Blk. 18, T.&P. Sur. ..... Spudded and S.D.
J. M. Johnson's No. 1 Swann, 6,150 ft. from S and 1,550 ft. from E, I. Miley Sur. ..... Drlg. 2,280 ft.
Robert Oil Co.'s No. 1 Swann, 2,350 ft. from W and 2,930 ft. from S, I. Miley Sur. ..... Drlg. 2,300 ft.
Smart & Reynolds' No. 1 Reynolds, 2,500 ft. from N and 150 ft. from W, Sec. 2, W. T. Scott Sur. No. 3 ..... S.D. 175 ft.
Southern Oil Co.'s No. 1 Sears, 300 ft. from S and W J. H. Grayson Sur. ..... Drlg. 1,075 ft.
C. S. Spelling et al's No. 1 Lillie, 200 ft. from N and W Sec. 4, E. Miller Sur. No. 2 ..... S.D. 1,751 ft.
Transcontinental Prod. Co.'s No. 1 Rust, 5,800 ft. N and 995 ft. W of SE cor. J. J. Hughes Sur. 556 ..... Spudded.
Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ..... Location.

LOVING COUNTY

Covey et al's No. 1 Wheat, 2,310 ft. from SW, 330 ft. from SE, Sec. 3, Blk. 2, W.&N.W. Sur. ..... S.D. 1,300 ft.
Ervin & Mahres' No. 1 Thrope, 2,310 ft. from E and 330 ft. from S, Sec. 46, Blk. 53, T.&P. Sur. ..... S.D. 810 ft.
Fair Lawn Syndicate's No. 1 Brookfield, 330 ft. from N and W, Sec. 30, Blk. 29, P.S.L. ..... S.D. 2,635 ft.
Goldman et al's No. 1 Allen, 330 ft. from NE and NW of Sec. 90, Blk. 1, W.&N.W. Sur. ..... S.D. 1,035 ft.
Lewis & Siegel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 58, Twp. 1, T.&P. Sur. ..... S.D. 2,280 ft.
Martin et al's No. 1 Wheat, 990 ft. from SW and SE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... Rig.
Miller et al's No. 1 Ferguson, 990 ft. from NE of [illegible] Sec. 44, Blk. 29 ..... pudded and S.D.
Tennant et al's No. 1 Martin, 990 ft. from NW and SW, Sec. 66, Blk. 1, W.&N.W. Sur. ..... T.D. 4,388 ft.
Thomas' No. 1 Wheat, 2,310 ft. from NW, 990 ft. from NE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... T.D. 2,660 ft.; to straightream.

MENARD COUNTY

Priest's No. 1 Sorrel, 1,000 ft. from E and 200 ft. from S cor., Sec. 132, E.L.R.R. Sur. ..... S.D. 2,880 ft.

PECOS COUNTY

Adams et al's No. 1 Shearer, 1,650 ft. from SE and 330 ft. from NE Sec. 101, Blk. 10, H.&G.N. Sur. ..... Spudded and shut down.
Aero Gas & Royalty Co.'s No. 2 Byrne, 1,470 ft. from NW and 1,500 ft. from SW, Sec. 54, Blk. 16, H.&G.W. Sur. ..... Drlg. 565 ft.
Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 39, G.C.&S.F. Sur., Blk. 194 ..... Location.
Culberson Bros.' No. 12-B Monroe, 1,042 ft. from N, 260 ft. from E of center line, Sec. 39, Blk. 194, G.C.&S.F. Sur. ..... Location.
Hampton et al's No. 1 Byrne, 1,980 ft. from NW and 1,500 ft. from NE, Sec. 54, Blk. 16, H.&G.N. Sur. ..... S.D. 1,395 ft.; T.P. 1,356 ft.
New State Oil Co.'s No. 1 Tippett, 1,349 ft. from S and 330 ft. from E, Sec. 40, Blk. 194, G.C.&S.F. Sur. ..... Drlg. 1,150 ft.

Steed Prod. Co.'s No. 1 Monroe, 150 ft. E, 300 ft. N of SW cor. of lease, Sec. 39, Blk. 194, G.C.&S.F. Sur. ..... Location.

PRESIDIO COUNTY

Sadler et al's No. 1 Bledsoe, 2,640 ft. from N and W Sec. 15, Blk. 354, G.C.&S.F. Sur. ..... S.D. 328 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 4-C University, 1,370 ft. fro mS and 1,000 ft. from E, Sec. 13, Blk. 3 ..... T.D. 8,367 ft.; drlg. on tools 7,979 ft.

Big Lake Oil Co.'s No. 7-C University, 1,570 ft. from W and 725 ft. from S, Sec. 36, Blk. 9 ..... Drlg. 6,000 ft.

Group Oil Corp.'s No. 5-B University, 2,700 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... Drlg. 4,410 ft.

REEVES COUNTY

F. McDorman et al's No. 1 Ray Roberts et al, 3,310 ft. from S and E lines of Sec. 32, Blk. 59, P.S.L. Sur. ... Drlg. 1,530 ft.

Southern Star Oil Co.'s No. 1 Wright, 1,320 ft. from S and W, Sec. 58, Cassel's Sur. ..... S.D. 250 ft.

RUNNELS COUNTY

Blue Bonnett Oil Co.'s No. 1 McMillan, 1,368 ft. from N and 660 ft. from W, Sec. 22, N. Travis Sur. ..... S.D. 2,510 ft.

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-30 ft.; S.D. 3,600 ft.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ..... T.D. 5,410 ft.; fishing.

Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... S.D. 5,580 ft.

George Wilson's No. 1 Page, Sec. 40, Blk. L, 1,320 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ..... S.D. 5,053 ft.

SCURRY COUNTY

G. E. Dickman et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 275, Blk. 2, H.&T.C. Sub. ..... S.D. 5,100 ft.

W. S. Guthrie's No. 1 Snyder National Bank, 330 ft. from N and 2,310 ft. from E of Sec. 115, Blk. 97, H.&T.C. Sur. ..... Drlg. 1,550 ft.

Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 68, Blk. 2, H.&G.N. Sur. ..... Spudded and S.D.

Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ..... S.D. 4,875 ft.

TAYLOR COUNTY

Dunigan et al's No. 2 Hunter, 2,367 ft. from N and 3,567 ft. from E of Sec. 27, W. R. Wills Sur. No. 122. Junked hole; skidded rig 40 ft. west.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M.-K.-T. Sur. ..... S.D. 2,269 ft.

Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Georgetown Ry. Sur. ..... S.D. 3,150 ft.; moved off tools

Miller Bros.' No. 1 Allison & Burke, C NW Sec. 10, Blk. 176, T.&P. Sur. ..... S.D. 120 ft.

Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S, Sec. 26, Blk. 161, G.C.&S.F. Sur.. S.D. 6,120 ft.

Jones et al's No. 1 Pankenham, C SE NW Sec. 43, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ..... S.D. 2,545 ft.

Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ..... S.D. 2,440 ft.

TOM GREEN COUNTY

Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 587 ft. from E of John McNeese Sur. ..... S.D. 760 ft.; S.O. and gas 735 ft

Mintex Oil Co.'s No. 1 Campbell Est., 446 ft. from S and 330 ft. from W of Sec. 180, Dist. No. 11, S.P. Sur.... S.D. 1,994 ft.

Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ..... S.D. 200 ft.

UPTON COUNTY

Farley et al's No. 3 Lane, 1,650 ft. from S and 330 ft. from W, Sec. 36, Blk. 1, M.-K.-T. Sur. ..... Drlg. 775 ft.

Hope Pet. Co.'s No. 2 Lane, 2,310 ft. from N, Sec. 36, Blk. 1, M.K.&T. Sur. ..... Machine.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 31, Blk. 1, I.&G.N. Sur. ... S.D. 400 ft.

O. O. Owens' No. 1 Mills, Sec. 138, Blk. 1, I.&G.N. Sur., elev 2,130 ft. ..... S.D. 6,780 ft

WARD COUNTY

Abell Bros. et al's No. 1 Smith, 330 ft. from NE and NW, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Fishing 2,265 ft.

Abell Bros.' No. 2 Smith, 2,310 ft. from SE and 2,020 ft. from NE, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,015 ft.

Abell Bros.' No. 3 Smith, 2,310 ft. from NE and NW, Sec. 4 ..... Drlg. 2,225 ft.

Barnsdall Oil Co.'s No. 2 Henry, 990 ft. from SE and 330 ft. from NE, Sec. 28, Blk. B-29, P.S.L. Sur. ..... Location.

Bradford & Bentley's No. 1 B. Carson, 1,650 ft. from the NE line and 990 ft. from the SE line of Sec. 26, H.&T.C. Sur., Blk. ..... S.D. 2,182 ft.

Caprito et al's No. 1 Beatty, 330 ft. from SW and 990 ft. from SE, Sec. 3, Blk. 34, H.&T.C. Sur. ..... Spudding.

Eastland Oil Co.'s No. 1 Green, 2,364 ft. from NW and 2,310 ft. from SW Sec. 4, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,250 ft.; top salt 1,010 ft.

Eastland Oil Co.'s No. 2 Weiss, 1,723 ft. from SW and 2,365 ft. from SE, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Location.

Eppenauer's No. 1 Purcell, 365 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 14, H.&T.C. Sur. ..... T.D. 2,740 ft.

H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... S.D. 2,223 ft.

Gulf Production Co.'s No. 22 O'Brien, 1,100 ft. from N and 330 ft. from E, Sec. 16, Blk. F, G.M.M.B.&A. Sur. ..... Drlg. 700 ft.

Gulf Prod. Co.'s No. 12 Hutchings, 330 ft. from N, 990 ft. from W, Sec. 3, Blk. F ..... Location.

Massie et al's No. 1 Stewart, 330 ft. from SW and SE, Sec. 12, Blk. 14, H.&T.C. Cur. ..... S.D. 2,445 ft.

Moran & Burkhart's No. 3 J. T. Sweatt et al, 3,310 ft. from SW, Sec. 1, J. Howe Sur. ..... S.D. 2,232 ft.

R. F. Owen's No. 1 Lee, 1,344 ft. from NW and 4,532 ft. from SW, Sec. 1, J. Howe Sur. ..... Drlg. 1,905 ft.

Penn Oil Co.'s No. 1 York, 2,310 ft. from NW and SW Sec. 10, Blk. 34, H.&T.C. Sur. ..... Drlg. 930 ft.

Plains Prod. Co.' and Simms Oil Co.'s No. 1 Benton Land Co., 440 ft. from the SE and 440 ft. from SW lines of Sec. 26, W.&N.W.R.R. Sur., Blk. 1 ..... Drlg. 3,272 ft.

Rector Oil Co.'s No. 1 Monroe, 660 ft. from NE and SE, Sec. 62, Blk. 33, H.&T.C. Sur. ..... Derrick.

Renaud-Prettyman's No. 1 University, 330 ft. from N and E Sec. 4, Blk. 16 ..... Underreaming csg.; T.D. 1,805 ft.

Rixford et al's No. 1 Green, 330 ft. from NW and SW Sec. 4, Blk. 34, H.&T.C. Sur. ..... T.D. 2,454 ft.

T P. Coal & Oil Co.'s No. 4 James, 330 ft. from NE and 2,365 ft. from SE, Sec. 5, Blk. 34, H.&T.C. Sur. ... Material on ground.

Thomas et al's No. 1 Bennett, 2,310 ft. from NE and SE, Sec. 16, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,300 ft.

White et al's No. 1 Burtner, 150 ft. from NE and 515 ft. from SE of Sec. 8, Blk. 32, H.&T.C. Sur. ..... S.D. 755 ft.

WINKLER COUNTY

Sid Richardson et al's No. 1 Scarborough, 1,650 ft. from N and W, Sec. 1, Blk. 77, P.S.L. Sur. ..... Location.

Sid Richardson et al's No. 2 Sealy estate, 1,650 ft. from S and 330 ft. from W, Sec. 94, Blk. A, G.M.M.B.&A. Sur. ..... Location.

SKELLY

600 MILES of PIPE LINES

SERVING

KANSAS PRODUCERS and ROYALTY OWNERS

AND FURNISHING

KANSAS CRUDE TO KANSAS REFINERIES

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Pipe Line Office—EL DORADO, KANS.

Home Office—TULSA, OKLAHOMA.

Marketing Office—KANSAS CITY, MO.

—o—

East Central Texas Wildcats

(Continued from Page 38)

DELTA COUNTY

Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur. ..... S.D. 3,733 ft.

Joiner et al's No. 1 Blackwell, 800 ft. S and 150 ft. from E lines of 275-ac. tract, Dunnetelle Sur. ..... S.D. 2,765 ft.

ELLIS COUNTY

Armstrong's No. 1 Milton Cook, SE cor. of 50-ac. tract, S. Frederick Sur. ..... S.D. 215 ft.

Armstrong Bros.' No. 1 Reeves ..... Waiting on cmt. to set 100 ft.

Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft from E and 150 ft. from S of Orland. Orlo Wheeler Sur. ..... S.D. 1,425 ft.

Clark Brooks' No. 1 Anderson, SE cor. of 3,000-ac. tract, 10 miles SW of Wachatchie, E. C. Branch Sur. .. Location.

Worthen Petroleum Co.'s No. 2 Carf, Mulligan Farm Sur., 50 ft. W of No. 1 ..... Prepare to abandon; T.D. 2,395 ft.

FRANKLIN COUNTY

Tom Harper's No. 1 fee, 150 ft. from N line and 200 ft. from E line of 116-ac. tr., W. M. Dawson Sur. ... Fishing 3,220 ft.

GREGG COUNTY

Arrow Drilling Co.'s No. 1 W. M. Borrough, 204 ft. from N line and 97 ft. from W line of lease, D. Moore Sur. ..... Drlg. 650 ft.

Atlantic Oil Producing Co.'s No. 1 P. McGeorge, 330 ft. from S line and 330 ft. from W line of lease, P. McAnally Sur. ..... Derrick.

Brown Eagle Oil Co.'s No. 1 T.&P.R.R., 27 ft. N of center of R.R. block No. 9, H. R. Hokit Sur. ..... Drlg. 2,000 ft.

D. M. Buffington's No. 1 Dansley, 500 ft. W and 200 ft. N of NE cor. of Searight Blackman 100-ac. lease, W. P. Chisum Sur. ..... S.D. 1,700 ft.

Burnham and Johnson's No. 1 H. L. Dansby, 650 ft. from E line of tract and 260 ft. from S line of lease, W. P. Chisum Sur. ..... Derrick.

Coates and Tucker's No. 1 George Anderson, 660 ft. from W line and center of N and S lines of lease, P. McAnally Sur. ..... Drlg. 2,495 ft.

J. E. Davant's No. 1 Rowland, 180 ft. W and 450 ft. S of SW cor. of Magnolia's Roland lease, M. V. Winkle Sur. ..... Set csg.

Dodd and Markey's No. 1 J. F. Holt, 615 ft. E and 767 ft. N of SW cor. of 200-ac. tract, H. Edwards Sur... S.D. 2,025 ft.

Carl B. Everett's No. 1 fee, center of Blk. No. 6, H. R. Hokit Sur. ..... Location.

Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur... Derrick

Guinn Petroleum Co.'s No. 1 J. S. and F. Elder, 200 ft. NE of Solar's No. 1 Elder, and 450 ft. SE of Martin's No. 1 Elder, M. V. Winkle Sur. ..... Rig up.

Hankamer and Cockran's No. 1 C. L. Taylor, 235 ft. from N line and 97 ft. from E line of lease, W. H. Castleberry Sur. ..... Derrick.

D. W. Henke et al's No. 1 C. L. Taylor, 235 ft. from N line and 611 ft. from W line and center of lease, W. H. Castleberry Sur. ..... Derrick.

Humble Oil & Refining Co.'s No. 1 J. M. Adams, 330 ft. from N and W lines of lease, J. Ruddle Sur. .... Drlg. 2,855 ft.

Humble Oil & Refining Co.'s No. 1 J. R. Smith, 330 ft. from W line and 1,070 ft. from N line of lease, D. Sanches Sur. ..... Drlg. 3,400 ft.

S. J. Jordan's No. 1 E. L. Walker, 660 ft. W of SE cor. of lease and 155 ft. from S line and 155 ft. from river, E. A. Lambert Sur. ..... Location.

K. B. Oil Co.'s No. 1 Dickson, 150 ft. from S and 150 ft. from W of 5-ac. lease, Mary Van Winkle Sur.... S.D. 700 ft.

Lee Brothers Drilling Co.'s No. 1 I. Johnson, 80 ft. due E of Katter and Manziel's No. 1 New Hope Baptist Church, M. Dillard Sur. ..... Drlg. 2,485 ft.

Lovett-Norr et al's No. 1 Rufus Smith, 1,100 ft. from N line and 750 ft. from W line of lease, R. Slaughter Sur. ..... Set surface csg. 55 ft.

Magnolia Petroleum Co.'s No. 1 M. Andrews, 530 ft. from N line and 368 ft. from E line of lease, J. Blair Sur. ..... Location.

Lee Masters' No. 1 Mrs. F. Thompson, center of Blk. No. 151, M. V. Winkle Sur. ..... T.D. 3,055 ft.

McBride et al's No. 1 Tubbs, 330 ft. from N line and center of E and W lines of 6-ac. lease, D. Sanches Sur. ..... Derrick.

J. B. Patty et al's No. 1 Farrell, 330 ft. S and 175 ft. W of NE cor. of E 50 acres of 148-ac. tract, D. Sanches Sur. ..... Location.

J. D. Patty et al's No. 1 J. C. McCormick, 207 ft. SE at right angles to Gladewater-Tyler road and 540 ft. SW of Abernathy and Kirkpatrick's No. 1 Gregston, M. Dillard Sur. ..... S.D. 3,617 ft.

E. A. Payne et al's No. 1 R. M. Woods, 20 ft. from S line and 81 ft. from W line of 2.13-ac. lease, H. R. Holit Sur. ..... Derrick.

Petroleum Finance Co.'s No. 1 C. C. Crews, W offset to Sinclair Prairie's No. 24 Cole, L. Perkins Sur. ..... Derrick.

Phillips et al's No. 1 Barcus, 300 ft. N of Magnolia's No. 5, D. Dainwood Sur. ..... Drlg. 2,200 ft.

Redgrave & Fagan's No. 1 A. Wynn, 160 ft. from S and E lines of 5-acre lease and tract, W. P. Chisum Sur. ..... Top sand 3,673 ft.; T.D. 3,680 ft.

Rio Oil Co.'s No. 1 Graves, 330 ft. from S line and 230 ft. from E line of lease, M. Irwin Sur. ..... Top sand 3,643 ft.; T.D. 3,666 ft.

Ruebin and Nadel's No. 1 Dorcas Wills, 654 ft. S and 508 ft. E of NW cor. of lease, W. P. Chisum Sur. .. Location.

Russell Petroleum Co.'s No. 1 Duncan, center of 1.28-ac. tract, Blk. 188, M. V. Winkle Sur. ..... Rig up.

W. C. Turnbow's No. 1 Knowles, W offset to Everts' No. 2 Barton, M. V. Winkle Sur. ..... Derrick.

Viscan Oil Co.'s No. 1 A. M. E. Church, 500 ft. N and 175 ft. E of Gulf's No. 6 Culver, John Wilkerson Sur. ..... Waiting on cmt. to set 3,545 ft.

Winona Oil Co.'s No. 1 Sumi-Wells, 330 ft. from S and E lines of tract, 550 ft. from S line of survey, J. M. Morris Sur. ..... S.D. 2,500 ft.

Wyche Bros.' No. 1 Charles Arnold, 330 ft. from E line and cen. of N and S lines of 34-acre lease, Peter Holmes Sur. ..... S. D. 3,711 ft.

HENDERSON COUNTY

B. L. Green et al's No. 1 M. H. Gussett, (old well drilled deeper), 150 ft. from N line and 1,000 ft. from W line of 105.5-ac. tract, 3 miles SW of Mabank, L. D. Stover Sur. ..... S.D. 2,735 ft.

H. H. Meyers' No. 1 M. E. Olson, 2 miles S of Brownsboro tract in NW cor. of survey, George Wilson Sur. ..... Location.

HILL COUNTY

Sherman-Houseman's No. 1 J. F. Griffith, in Samuel Waddell Sur. ..... Fishing 3,256 ft.

HOPKINS COUNTY

Roark et al's No. 1 Taylor, 220 ft. from N and W lines of 80-ac. tract in the John Polk Sur. ..... S.D. 540 ft.

HOUSTON COUNTY

Nelson's No. 1 Harron, 300 ft. out of NE cor. of 327-ac. tract, J. P. Procella Sur. ..... Spudded and S.D. 37 ft.

T. B. Roberts' No. 1 Pennington, 750 varas W of E line and 500 varas from S line of survey on 186-ac. tract, Ramond LaGarza Sur. ..... T.D. 2,660-66 ft.

HUNT COUNTY

Chandler et al's No. 1 Mrs. A. Walker, 200 ft. from S line and 500 ft. from W line of most southerly SW cor. of tract and survey, J. P. Bowerman Sur. ..... Location.

Branson et al's No. 1 Gray ..... Location.

Russell et al's No. 1 Brooks and Quattlebaum ..... S.D. 1,455 ft.

KAUFMAN COUNTY

Standy Darnell et al's No. 1 Sally Pannill ..... S.D. 2,214 ft.

LAMAR COUNTY

G. W. Davy et al's No. 1 McGustion, 450 ft. from S line, 450 ft. from W line of farm and survey, Galet Wood Sur. ..... Temp. abnd. 3,605 ft

Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ..... S.D. 2,446 ft.

Doyle and Jondeau's No. 1 Horn, 226 ft. from S line and 608 ft. from E line of lease, R. P. Mayor Sur. ..... T.D. 2,890 ft.; S.D.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen Sur. ..... Location.

MORRIS COUNTY

Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 180 ft. from E line of 85.5-ac. tract, J. D. Nelson Sur. ..... S.D. 3,554 ft.

Geo. L. Pace's No. 1 Walcott, 330 ft. from N and E lines of most northerly NE cor. of survey, 3 miles S of Carson, D. A. Russell Sur. ..... S.D. 48 ft.

NACOGDOCHES COUNTY

Adams et al's No. 1 Fuller Brothers, located in a 269-ac. tract, Jose Flores Sur. ..... Location.

POLK COUNTY

Collins and Plummer's No. 2 Collins, 7 miles SE of Livingston ..... S.D. 5,204 ft.

Taylor et al's No. 1 E. L. Duke, 330 ft. from N and W lines of 23.5-ac. tract, SW cor. of county, Peter J. Manard Sur. ..... Rig up.

RAINS COUNTY

C. H. Bayliss' No. 1 Ownby, 150 ft. N and 1,100 ft. from E of most easterly SE cor. of survey, Alexander Sur. ..... Top Woodbine sand 4,432 ft.; T.D. 4,515 ft.

RED RIVER COUNTY

Hoffman and Henson's No. 1 H. H. Lennox, 2,790 ft. W and 200 ft. S of most easterly NE cor. of survey, J. E. Edmondson Sur. ..... S.D. 60 ft.

Concord Oil Co.'s No. 1 J. R. Dellahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ..... Rigging up heavy rig to drill to 4,000 ft.

L. G. Priest's No. 1 W. C. Ware, 3½ miles SE of English, 987 ft. from most southerly S line and 150 ft. from most easterly E line of 103.3-ac. tract, James Burkham Sur. ..... S.D. 350 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tract in W. M. Bird Sur. ..... Set 10-in. csg. 130 ft.

RUSK COUNTY

Bristol & Thomas' No. 1 London School, 300 ft. W of Wissman's No. 2 Wilson, F. Cordova Sur. ..... Drlg. 3,645 ft.

Brooks Petroleum Co.'s No. 1 Mayfield, Daniel Clark Sur. ..... Top sand 3,622 ft.; waiting on standard rig; would not log. T.D. 3,702 ft.

D. D. Bruton's No. 1 R. A. Motley, center of 5-ac. lease, F. Cordova Sur. ..... Derrick.

T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ..... Drlg. 2,530 ft.

Florence Oil Co.'s No. 1 R. A. Motley, 330 ft. from N and E lines of 25-acre lease, F. Cordova Sur. ..... Drlg. 3,775 ft.

Gant and Garwin's No. 1 W. P. Moore, 330 ft. S and E of SW cor. of Arkansas, W. P. Moore 40-ac. tract, M. V. Pena Sur. ..... Drlg. 2,982 ft.

Graner Oil Co.'s No. 1 P. C. Warren, 700 ft. W of Cameron Oil Co.'s No. 1 Warren, John Womack Sur. ..... Coring 3,784 ft.

J. Guinn's No. 1 Neal Cooper, center of Blk. No. 36, T. J. Moore Sur. ..... Waiting on standard rig; T.D. 3,660 ft.

Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ..... Derrick.

Hasting and Dodson's No. 1 E. B. Alford, center of Blk. No. 27, T. J. Moore Sur. ..... Derrick.

Hathaway et al's No. 1 Gray, J. M. McLain Sur. ..... S.D.

Helden-Rodgerson et al's No. 1 Barton and Birdwell, N offset to Reisinger et al's No. 1 Barton, W. G. Tutt Sur. ..... Waiting on cmt. to set 3,752 ft.

Hendershot et al's No. 1 Green Washington, 330 ft. from N line and 250 ft. from W line of 11.75-ac. tract, D. Clark Sur. ..... S.D. 2,400 ft.

H. H. Howells' No. 1 Gus Johnson, 330 ft. from S line and 330 ft. from W line of 31.84-ac. lease, H. B. Dance Sur. ..... Drlg. 2,100 ft.

Humble Oil & Refining Co.'s No. 1 Oscar Robertson, 350 ft. from N line and 134 ft. from W line of 50-ac. lease, J. D. Clarke Sur. ..... Derrick.

T. A. Johnson's No. 1 H. B. Leverett, 200 ft. from N line and 222 ft. from W line of tract, J. Lindley Sur. ..... Derrick.

W. C. Know's No. 1 W. D. Peterson, center of 3.76-ac. tract, Jacob Lewis Sur. ..... S.D. 2,200 ft.; rig moved off.

R. C. Lipscomb's No. 1 Solon Jackson, 310 ft. from N line and 385 ft. from E line of lease and tract, Peter W. Holmes Sur. ..... Set surface csg.

C. H. Lyons' No. 1 Deason, 150 ft. from S line and 150 ft. from W line of 33-ac. lease, M. J. Pru Sur. ..... Rig up.

Mid-Kansas Oil & Gas Co.'s No. 1 M. A. Price, 210 ft. from N line of road and 330 ft. from W line of lease, J. B. De Cadena Sur. ..... Derrick.

Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ..... T.D. 3,323 ft.

Sampson and Crane's No. 1 T. H. Gill, located on 10-ac. tract offset to Houston and Karona's No. 1 Patterson, R. W. Smith Sur. ..... Fishing 3,625 ft.

Snider and Spradner's No. 1 Brightwell, 650 ft. from S line and 150 ft. from W line of lease, R. W. Smith Sur. ..... Derrick.

Snyder et al's No. 1 H. P. Leverett, 320 ft. from S line and 167 ft. from W line of tract, J. Lindley Sur. ..... Testing 3,806 ft.

Sun Oil Co.'s No. 1 Jeff Hendon, 1,193 ft. from N line and 230 ft. from W line of lease, Juan Ximines Sur. ..... Rig up.

R. H. Vice's No. 1 Neal Cooper, 315 ft. SW along NW line of Cooper tract and 141 ft. SE at right angles, T. J. Moore Sur. ..... Waiting on standard rig 3,797 ft.

Watson and Butler's No. 1 G. W. Tipps, 330 ft. from S line and 600 ft. from W line of 18-ac. lease, H. M. Smith Sur. ..... S.D. 250 ft.

Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ..... S.D. 1,465 ft.

York et al's No. 1 Worrell, 55 ft. from N and S line and 107 ft. from W line and 103 ft. from E line of lease, J. B. De Cadena Sur. ..... Set surface csg.

Webb Petroleum Co.'s No. 1 M. R. Terrell, 1,000 ft. from N line and 2,300 ft. from E line of survey, W. R. Cook Sur. ..... Drlg. 2,786 ft.

SMITH COUNTY

Hooper et al's No. 1 Lule Jackson, 330 ft. S and 530 ft. E of most northerly SW cor. of Monroe Shell Robinson lease, E. Daniels Sur. ..... Fishing for drill stem, T.D. 2,934 ft.

Joiner et al's No. 1 C. S. Jackson ..... S.D.; swabbed dry; T.D. 3,985 ft. (corrected).

Rabe et al's No. 1 Bateman, 332 ft. from S line and 278 ft. from E line of 15-ac. lease, James Jordan Sur. ..... Derrick.

F. L. Shackelford's No. 1 Lula Jackson, 384 ft. E along N line of Summitt Mayfield lease, from NW cor. and 357 ft. N at right angles, E. Daniels Sur. ..... Rig up.

Alph Tillman et al's No. 1 Jessie Cole, 137 ft. from E line and 375 ft. from N line of 32-ac. lease, center of 5-ac. lease, James Jordan Sur. ..... Drlg. 3,680 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ..... T.D. 4,212 ft.

UPSHUR COUNTY

Grover Hart's No. 1 Allen, 330 ft. from S and E lines of lease, one-half mile W of Mountain, Gonzales Sur. ..... Derrick.

Hawkeye Petroleum Co.'s No. 1 L. L. Markey, 150 ft. from E line and center of N and S lines of 141.7-ac. tract, T. Hopkins Sur. ..... S.D. 3,685 ft.

Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1⅛ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ..... Waiting orders 3,710 ft.

Peckham Oil Co.'s No. 1 E. H. Hampton, 330 ft. from S and E line of S 60 acres of E 150 acres of 192-ac tract, William King Sur. ..... Top sand 3,686 ft.; S D 3,688 ft.

Pitts et al's No. 1 H. Davis, center of 7.5-ac. lease, W. R. Stephens Sur. ..... Derrick.

Stroube & Stroube's No. 1 Lofton, 251 ft. from S line and 330 ft. from E line of S 40-acre of 56-acre tract, McKinney & Williams Sur. ..... T.D. 3,639 ft.; top sand 3,632 ft.

Webster's No. 1 R. H. McClelland, 1,956 ft. E and 385 ft. S of NW cor. of 751-ac. tract, M. P. Del Torres Sur. ..... Derrick.

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 225-ac. tract, 3½ miles S of Canton, M. J. DeCadena Sur. ..... S.D. 2,405 ft.

Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tract, John Conner Sur. ..... S.D. 2,300 ft

Pure Oil Co.'s No. 4 T. D. Miller 200 ft. W of E line and 250 ft. N of S line, John Walling Sur. ..... Coring 2,988 ft.

Pure Oil Co.'s No. 9 Ella York, 250 ft. S of N line and 200 ft. W of E line of tract, John Walling Sur. ..... Testing 2,929 ft.

Pure Oil Co.'s No. 5 A. W. Ellison, 710 ft. S of N line and 700 ft. W of E lines of lease, James Rose Sur. ..... Location.

Pure Oil Co.'s No. 3 Mrs. C. White, 250 ft. S and 250 ft. W of NE cor. of lease, John Walling Sur. ..... Location.

A. C. Rowan's No. 1 W. E. Price, 150 ft. from N line and 150 ft. from W line of 28-ac. tract, John Walling Sur. ..... Location.

Van Oil Association's No 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 2,850 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 350 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur. .... Spudded.

W. B. Saulsbury's No. 1 T. H. Peters, 600 ft. from S line and 200 ft. from E line of 320-ac. tract and survey, 4 miles E of Mineola, W. B. McNutt Sur. .... Bldg. derrick.

Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ..... Drlg. 3,166 ft.

Wood County Dev. Co.'s No. 1 Davis, approximately 180 ft. from S line of 160-ac. tract and 2¼ miles S of Kantes in Sarah McDonald Sur. ..... Drlg. 2,070 ft.

North Government Wells Extended Northeast by Completion of R. F. Byrd No. 1 Test

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., July 18.—North Government Wells Pool was extended about 4,800 feet northeast by completion of R. F. Byrd's No. 1 R. T. Wright, northwest corner of Survey No. 101 (erroneously shown on some maps as Survey No. 107), which came in at 2,298 feet for a large volume of gas spraying oil. It was ungauged at last reports. The southwest corner of Survey No. 101 adjoins the northeast corner of Survey No. 44 and the Suttle discovery well is in the center of Survey No. 44. Survey No. 101 is a narrow survey and is not a full section of 640 acres.

Half way between the Byrd and Suttle wells the Windsor Oil Co. completed the No. 1 Cummings at 2,296 feet flowing oil, but ungauged at last reports. Sands are at about normal depths with other producers when elevation is accounted for.

This is a big and important enlargement of the field and the Byrd well, which is a half mile east and three-quarters of a mile north of the Suttle well, seems to indicate that the field is swinging to the east and not taking a straight north and south trend.

The next important test is the Petroleum Finance Corp. (Luse & Russ) No. 1 Hahl, a half mile south of nearest production and 1 mile south and half a mile west of the Suttle discovery well. It has been delayed by lack of water, yet was expected to get the sand early this week. All other locations at this time are pretty much proven acreage.

At the close of the past week there were 12 propositions, half of them either rigged up or drilling, and the San Diego Oil Corp., under which name the interests that drilled the Suttle well have incorporated, has staked out a dozen or so new locations and has let contracts for the drilling of a number of wells in order to get a volume of production that will demand a market. Thus far the field is without any market except a little the Magnolia is taking.

Proration Demanded

The Texas Railroad Commission has been holding proration meetings and other parts of the state have objected to the Duval County district being not prorated and there was talk of a maximum of 150 bbls. per well for the field but this was later changed to 200 bbls. per well and gas ratio of 1,250 feet per barrel of oil.

In the Sarnosa end of the Government Wells area Hynes & Nesaly 3,000 feet south of production was brought in at the close of the week for about 300 bbls. daily. Smith & Capps were bringing in two producers on inside locations which would make a field of six producers in a group in the Sarnosa Pool and the only test at a distance being the Hynes & Nesaly well a half mile south. Hence this field has done but little thus far toward developing a trend except that The Texas Company drilled the No. 1 Ruiz a mile east of production and got a dry hole, and are now starting the No. 2 Ruiz a half mile farther east but due south of the south extension of the Government Wells Field.

Outside of the Starr County district, where there is drilling to develop production, the Government Wells district is the only territory where there is promise of the development of important additional production. Along the Balcones Fault there are no pool developments at this time and in the coast counties nothing. In the North Government Wells Pool there are so many operators and the acreage is cut up to such an extent that there is promise of a lot of immediate drilling on proven acreage with room already for 100 wells. The Magnolia Petroleum Co. is most interested among the majors and its acreage is so placed that it will be called upon to do a lot of offset drilling when the independents get under full sway and get an outlet for their production.

Webster Gets a Crevice

C. J. Webster Oil & Gas Co.'s No. 1-A McCrory hit a crevice in the Austin chalk at 2,083 feet last week and has set casing with the probability that it would drill in the middle of this week. Austin chalk was topped at 2,001 feet and on drill stem test for a few minutes it made gas, then cleaned itself of mud and drilling fluid and began making pure pipe line oil. It was closed in and casing set last Thursday night, after difficulty with high pressure. The well has plenty of "kick" to it and is being estimated by many at around 2,500 to 3,000 bbls., though experienced oil men recognise that crevice wells are not safe to guess on. It could easily go much higher than 3,000 bbls., but due to the showing is not expected to go much less than that.

The No. 1 McCrory was a well in the Edwards lime topped at 2,279 feet and the No. 1-A McCrory was located about 100 feet nearer the faulting in the Edwards in the hope of getting a crevice well, which it did. The first plan, counting on getting production in the Edwards, was to move in the opposite direction and from the fault in the Edwards in order to get higher up on the Edwards and get more pay.

Plans for further drilling are not consummated thus far and wait on the completion of the crevice well. It is in the middle of the 800-acre block which takes in about all the acreage that could be productive since the field is cut off on the southwest by The Texas Company's No. 1 Branyon, another crevice well which has been producing for several years, and the Buchanan Pool on the northeast producing from Serpentine.

Discouraging News From Dunlap

There was discouraging news from the Dunlap Pool, 2½ miles northwest of the town of Luling and 12 miles away and on a different trend from the Webster Pool. As yet the Dunlap Field is a field of two producers with the oil coming from crevice. The past week Trinity Drillers abandoned their No. 1 Dunlap, a northwest offset to the discovery well, and Smilock Oil Co.'s (Townes & Porter) No. 1 Dunlap, a west offset to the other of the two producers of the field, failed to make a well though there was a chance that they would shoot it. Also the Bob Rose No. 1-A Walker, a mile north, failed to produce where it was expected to and was continuing to drill

In the new Sal-Mar Field in Guadalupe County 25 miles southwest of the Dunlap Field, which as yet consists of only the discovery well, one other test has got started. It is the Wormser No. 1 Pfullman, located 450 feet west of the discovery well which is the Sal-Mar Oil Co.'s No. 1 Zunker producing in Austin chalk, and possibly in a crevice at 2,042 feet. As a matter of fact it is shut in waiting an outlet for the oil. The Wormser test should reach the pay by the middle of this week. There are other locations staked out and if this Austin chalk production develops into a field there is a chance here for a considerable development since considerable of the acreage is held by independents, though major companies are protected with acreage.

Two Important Wildcats

Two important wildcats were to be tested over the week end. The Coyle-Concord Oil Co.'s No. 1 Nelson in Survey No. 43 in southern Colorado County is probably the most important wildcat at this time in Southwest Texas. It was going into the hole late last week and due to test over the week-end. Its isolated position far removed from any production and the multiplicity of sands with good thickness that it has encountered, one sand at 3,800 feet good, it is thought, for around 40,000,000 feet of gas but passed up, and the other at 4,021-25 feet which it is now testing and with a little show of oil along with a big gas volume on drill stem test, is enough already to encourage a lot of other wildcatting in that trend between the Raccoon Bend Field on the northeast and the Pettus on the southwest.

The No. 1 Nelson has its showing in the Oligocene and is estimated to be 500 feet above the top of the Jackson and the Jackson formation has proven itself productive in many spots along the Reynosa escarpment in the Laredo district.

The Coyle-Concord test is being drilled on a block of 20,000 acres selected after a vast amount of core drilling and geophysical and other geological work on the theory of a deep seated salt dome. Completion of the No. 1 Nelson will determine what the company will do next. If there is not much oil production with it the company may decide to drill a little deeper and possibly may mud off the sand and carry the hole on looking for other production, or complete at this depth and start another test.

The other wildcat to be tested is the C. F. Nichol's No. 1 Harris in Bee County at Tuleta, 3½ miles south of the Pettus production and 3½ north of the Normanna Pool. It got the Pettus sand high and after a drill stem test showed three joints of oil set casing at 4,090 feet. The Pettus main field has made a pool about 3 miles long, but the other production around it, notably the Cosden Pool, is a pool of only a few wells. The Normanna Pool thus far is only two wells and off to the northeast there are some scattered and as yet isolated producers. However, there is considerable active lease play reported and C.R.&M. Drilling Co. has acquired a half interest in the Nichols well and 30 acres around it.

Starr County

Operations in Starr County have increased. The Rio Grande City Pool is now a pool of three wells and with a fourth on the sand and with casing set and other tests drilling. The Gulf Coast Oil Co.'s No. 1 Frank Doyno, a half mile north of the discovery well, is going on the pump but looks like it was good for 75 bbls. or more and the Sioux Oil Co.'s No. 3 Goodrich, north offset to its discovery well, is on the pump and making about 75 bbls. The Gulf Coast's No. 1 Frank Doyno was completed at 1,461 feet and the No. 3 Goodrich at 1,444. The discovery well was completed at 1,382 feet. Elevations account for the difference. First tests around the discovery well of the Rio Grande City Field were off to the west and southwest and were dry holes. Now that the trend of the field is indicated to be north and south there have been several new locations made and tests started that may develop production.

In the Los Olmos Field, 8 miles northwest, there is some additional drilling for the shallow oil and Los Olmos Oil & Gas Co. which brought in the discovery well has a plan for a large number of additional wells. In addition there are two deep tests to start in the middle of the field, one by V. V. Combs in Section 6 of the Kelsey Bass subdivision and one by Moore & Van Matre on Share 5 of the subdivision of the west two-thirds of Porcion 75 on the west side of the field. Also George Stobaugh has already spudded in and set surface casing on his No. 1 Seabury in Porcion 107, 4 miles north of the shallow field.

Wildcat Operations in Southwest Texas

Week Ending July 16

ATASCOSA COUNTY

Company, farm and location—	Remarks:
American Central Oil Co.'s No. 2 Mary McConnell, 150 ft. W of E line, 300 ft. S of No. 1, Blk. 138, W. C. M. Baker Sur., 3 miles W and 6 miles S from Somerset	T.D. 1,660 ft.; standing.
Glen Mathis' No. 2 Mrs. C. Martin, 100 ft. SE of No. 1	T.D. 2,980 ft.; standing.

BANDERA COUNTY

F. A. Brown's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 70 ft.; drlg.

BEE COUNTY

Howeth & O'Neal's No. 1 King ranch, 650 ft. from N and W lines of Kleberg 140-acre tract in Robert Stevenson Sur.	Moving in rig.
C. F. Nichols' No. 1 J. P. Harris, Durango grant east of Tuleta	T.D. 4,098 ft.; tested 3 joints oil, set csg.
C. F. Nichols' No. 1 Kimball, 225 ft. N, 40 deg. W of Grayburg Oil Co.'s No. 1 Kimball	Spudded in.

BEXAR COUNTY

Amerada Petroleum Corp.'s No. 1 Peter Kiolbassa, 1,000 ft. from E line, 600 ft. from S line of 100-ac. tract, A. Mancho Sur., 4 miles SE St. Hedwig	T.D. 507 ft.; drlg.
Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio	T.D. 1,040 ft.; set 4½-in. csg.
S. W. Blount's No. 1-A S. A. Land & Dev. Co., 10 ft. from No. 1 in I. Peres Sur.	T.D. 900 ft.; no report.
Eckert et al's No. 1 Edwards, 150 ft. to N and W lines of farm in Martinez Sur.	T.D. 1,900 ft.; drlg. in Edwards.
Moore-Jauer's No. 1 Holly R. Ellison, 2,916 ft. from E line, 1,500 ft. from S line of farm in T. York Sur.	T.D. 1,953 ft.; standing.
Dr. Ewell Neil's No. 1 J. Watson, 500 ft. from W line, 1,700 ft. from S line of B. Martinez Sur.	T.D. 2,495 ft.; in Edwards, dry

(Continued on Page 60)

Southern Oklahoma Old Shallow Fields Attract Operators Who Seek Deeper Pay Sands

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

Oklahoma's production shows a decline of approximately 17,000 bbls. daily for the week ending July 16, mostly from the Oklahoma City Pool. The daily average for the State was approximately 406,300 bbls.

An important announcement was made during the week of a wildcat location north of the Oklahoma City Field in Oklahoma County, Sinclair Prairie Oil Co.'s No. 1, C SE NW, Section 4-13-1w. It will be a Wilcox sand test. Surveys are being made for water and gas lines over the week-end and work was getting underway for the digging of the cellar. It is believed the material for the rig will be moved from Oklahoma City to the location in a few days.

The block on which the test will be drilled was assembled by W. H. Atkinson and T. B. Slick several years ago. Later the Prairie Oil & Gas Co. acquired a half interest. The block consists of about 2,600 acres which is believed to be on structure, and which has been core drilled. Other companies interested in the district outside of the operating company are, W. H. Atkinson, Slick-Urschel, Gypsy Oil Co., Mid-Continent Petroleum Corp., Continental Oil Co., Shell Petroleum Corp., Amerada Petroleum Corp., and Stanolind Oil & Gas Co.

Skelly Oil Co.'s No. 1 Moon, NW cor. SW NE, Section 22-11-3w, Oklahoma City Field, made 1,295 bbls. of oil in three hours and approximately 6,000,000 feet of gas a day from the sand at 6,486-6,560 feet. Phillips Petroleum Co.'s No. 1 Brimm, NE cor. NW NE, Section 3-11-3w, made 917 bbls. of oil the first 45 minutes from the sand at 6,321-40 feet.

Murray Issues Supplemental Order

Governor William H. Murray on July 11 issued a supplemental executive and military order relative to the Oklahoma City Field as follows:

"Whereas, it has been made to appear that the executive and military order issued by the chief executive of the State of Oklahoma, on June 21, 1932, relative to conditions existing in the Oklahoma City oil field, and the production, storage, transportation and marketing of crude oil or petroleum in said field, is not entirely clear in some respects, the said order having been prepared hastily; and,

"Whereas, it is the desire of the chief executive that the said order may be so clear that there can be no misunderstanding with reference thereto:

"Now therefore, it is declared by the chief executive that it was and is the purpose and intention of the said order to furnish the force and means necessary to enforce and carry out the orders of the Corporation Commission, made and promulgated for the purpose of regulating the production, transportation and marketing of crude oil in the Oklahoma City oil field, the Corporation Commission being powerless to enforce its own orders, and that it was not the purpose or intention of the said executive and military order of June 21, 1932, to suspend, supersede, or in any manner interfere with the Corporation Commission in the exercise of its statutory powers and duties, except to suspend the power and authority of the agents of the Corporation Commission to enforce the orders, rules and regulations of said commission in the Oklahoma City oil field.

"And it is hereby further declared that it is not the purpose or intention of the said order that the proration board referred to in said order should in any manner usurp any of the powers or functions of the Corporation Commission, but merely that said proration board should act in an advisory capacity for the purpose of counseling and advising the Corporation in the performance of its duties, for the purpose of counseling and advising Lieut. Col. Cicero I. Murray in the enforcement of the orders of the Corporation Commission, and for the purpose of keeping the chief executive fully advised with reference to conditions existing in the Oklahoma City oil field, and as to how the said executive and military order of June 21, 1932, is being performed and carried out.

"Now therefore, I, William H. Murray, the governor of the State of Oklahoma, do hereby order and direct that the said executive and military order of June 21, 1932, be interpreted as herein set forth as explained.

"And I do hereby further order and direct that the said order, as hereinbefore and hereby explained and interpreted, shall, in all things, be and remain in full force and effect, and that it be diligently executed and enforced according to its terms and provisions as herein and hereby explained and interpreted."

Commission Upheld

The authority of the Oklahoma Corporation Commission to enforce its proration orders was upheld by the state supreme court during the week when the Wilcox Oil & Gas Co. filed an application for a writ of prohibition against enforcement of the orders against the company. The supreme court upheld the power of the commission, and the 10 wells of the company located in the Oklahoma City Field remain shut in until such time as the company makes its delayed reports and definitely fixes the status of each well.

The suits followed the victory of the State last week when the company was found guilty on 17 charges and fined a total of $8,500 by the Corporation Commission. The procedure was classed as contempt, as the company had failed to make reports of production, and pipe line shipments of oil from the Oklahoma City Field.

In an application to shut down the wells owned by the Wilcox company in the Oklahoma City Field, the umpire alleged the company was overproduced 1,000,000 bbls. of oil from its 10 wells in the field. It was brought out at the hearing that the company had made no reports on its production for the period from April 7 to 18, inclusive, and it had made no pipe line report or production reports for the months of April, May and June.

C. E. Stewart, pipe line superintendent of the Magnolia Petroleum Co., testified that his company had purchased a total of 987,392 bbls. of oil from the Wilcox Oil & Gas Co. and Titan Oil Co. between the period of January 1 and July 10. All of this crude oil was taken from the Wilcox Oil & Gas Co.'s tank farm east of the field. He also said that his company had never transported crude oil as a common carrier for the Wilcox or Titan Oil companies. Several representatives of pipe line and producing companies testified that they had not sold crude oil to these companies.

Oil Demand Declines

The following table shows the oil demand for the State of Oklahoma as of April 1 and of July 1, with the exception of the Oklahoma City Field, which is for the half month period.

District—	April 1	July 1
Oklahoma City	103,000	87,350
Class "A"	182,780	179,110
Class "B"	135,000	130,396
Class "C"	20,875	17,672
Others	.....	3,880
Total	441,655	418,408

The major purchasers are not able to estimate what their requirements will be after September 1 and for that reason recommended that extension of the present order be for two months only.

It was recommended that the Wewoka Townsite, with a potential of 5,002 bbls. daily on July 1, and with a daily allowable of 4,000 bbls., be reduced to 2,500 bbls. a day.

The West Seminole area in the Greater Seminole district which has been heretofore unclassified and having an allowable of 2,700 bbls. a day and a potential of 11,686 bbls., should be put in Class "B," giving a 10-day potential test and then allowed the usual 44 per cent outlet with all the other areas in the Greater Seminole Field.

East Earlsboro's Calvin sand area, with six completed wells should be classed as a wildcat area and each well only allowed to produce 50 bbls. a day.

The State Line Pool, in the eastern part of Lincoln and western edge of Creek County, where three wells have been completed in Section 1-15-6, Lincoln County, with several others drilling, likewise should be classed as a wildcat area and the wells should be allowed 50 bbls. a day.

The West Konawa area in southern Pottawatomie County, where three wells have been completed, would be classed as wildcats.

The new Sacred Heart area, with four wells, which is now considered as the south extension to the St. Louis Pool, which has a potential of 3,631 bbls., was recommended to be added to the St. Louis area and given an allowable accordingly.

The suggestion that the Bay Oil Co.'s well, in Section 32-23-7, Osage County, be given a classification, brought a controversy and no decision was made. At present the well is classed as a wildcat well but testimony was offered at the hearing showing that it is in a pre-existing drainage area.

Demand in Oklahoma City

The purchasing companies' nominations from the Oklahoma City Field totaled 87,350 bbls. daily compared to 97,300 bbls. the previous period. The principal decline was by the Oklahoma Pipe Line Co. which reduced its nominations 8,000 bbls. daily to a total of 14,000 bbls. A nomination of 3,000 bbls. daily was made by the Wilcox Oil & Gas Co. The next hearing for the Oklahoma City Field will be held July 27, at which time the Oklahoma Corporation Commission will determine the demand for the next month, will hear the protest against the flat allowables, a petition having been filed by the Wilcox Oil & Gas Co. The nominations for the last 17 days of July were as follows:

Company—	Nominations	June shipments
Champlin	2,000	2,061
Continental	2,000	3,118
Empire	15,000	14,302
Globe	7,000	5,607
Magnolia	3,050	5,870
Oklahoma	14,000	20,190
Sunray	(*)	1,384
Shell	2,500	1,636
Sinclair Prairie	7,500	5,271
Stanolind	17,000	19,173
Tidal	200	344
Wilcox	3,300	3,627
Anderson & Prichard	100	93
Canadian Pipe Line	500	507
Capitol	150	149
Century	1,000	1,040
I. T. I. O.	5,000	5,220
J. H. Peacock	350	501
Petroleum Pipe Line	1,500	520
Independent Pipe Line	2,500	2,094
White Oak	3,000	745
Major Petroleum	400	202
Speedway Gasoline	300	70
Cement Refinery	....	25
Royaline	....	67
Firestone	....	27
Total	87,350	97,099

*Included in Empire nominations.

Objections to Town Lot Wells

During the week attempts to drill another well on the edge of the U-7 zone in the Oklahoma City Field were barred by the state supreme court. The Anderson-Kerr Drilling Co. was refused a permit to drill a well in the 300-foot border zone which extends around the U-7 drilling zone until the merits of the company's appeal can be passed on. The company's attorney applied for a supersedeas bond which would permit the company to drill in Block 4, Second Riverside Addition, near the junction of Grand and Byers Avenue, pending appeal.

The company was denied a drilling permit in the district court when the tax payers appealed from a ruling by a board which would have permitted the drilling of the well. It was from the district court the company appealed.

Wilcox Test in Noble County

Wentz Oil Corp.'s No. 1 Community, C SE NW, Section 17-20-2w, Noble County wildcat, spudded during the week, and it is expected to be carried to the Wilcox sand at approximately 5,300 feet. The test is located on a block of 2,160 acres and the other companies joining in the unit operation include Shell Petroleum Corp., Gypsy Oil Co., Carter Oil Co., Sinclair Prairie Oil Co., Twin State Oil Co., Empire Oil & Refining Co., Phillips Petroleum Co. and Wentz Oil Corp. These same companies also own considerable acreage in the vicinity outside of the block.

An interesting wildcat test in Payne County was attracting considerable attention during the week when a showing of oil was found in the Simpson sand. The oil rose 3,000 feet in the hole from 3,730-72 feet. The Wilcox sand was found at 3,772 feet and it was shut down at 3,816 feet. Considerable water was found in the Wilcox sand and after a swabbing test made from the Simpson sand the well made 27 bbls. of oil. The owners plan to make a deep test of this well until the bit reaches the granite.

An extension well was being drilled into the pay in southern Pottawatomie County located between the new wells in the Sacred Heart area and in the St. Louis Pool. The well is H. H. Taylor and others' No. 1 Bean, SW cor., Section 36-7-4, and it was drilling at 4,180 feet on the last report in Simpson dolomite. The well found considerable oil in the Viola lime. As the result of the oil showing Phillips Petroleum Co.'s No. 1 in NE cor. SE, Section 35-7-4, was staked a diagonal southwest offset.

Showings in Grady County

Two wildcat tests in Grady County

were preparing to test showings of oil. The wells were English Drilling Co.'s No. 1 Heenan-Coe, NE cor. SE NE, Section 32-3-7w, which found a showing of oil at 2,675-83 feet and cemented the 8-inch casing on top of this showing. It was the second showing found in the test. Lesh and McCall's No. 1 Slaton, NW cor., Section 35-4-7w, Grady County, has cemented casing on top of a sand showing oil and gas at 1,790 feet. The total depth of the test is 1,820 feet.

In Southern Oklahoma

The shallow fields in southern Oklahoma are getting more active as the result of the strict proration in the gusher fields in the State which is causing the independent operators to return to the shallow areas, where small independent refineries and skimming plants offer a market outlet to producing properties. In many of the shallow pools these refineries are running and the entire output from near-by wells is consumed by these plants.

On the eastern edge of Comanche County, there are two such small refineries operating and a new oil development has started. Landowners in the area report a number of transfers of oil and gas leases recently.

The Shale Oil Co., owner of one of the plants, located about 8 miles east of Lawton, has a capacity of 60 bbls. daily. Another plant owned by the Palmer Refining Co., 12 miles east of Lawton, has a capacity of 90 bbls. daily. Both plants own and operate trucks, to gather the production from wells on nearby leases. When the local fields fail to supply enough crude oil, the trucks are sent to Walters Field, Elgin and other nearby fields for enough crude oil to keep the plants in operation.

The Petroleum Producers Trust, recently secured a lease on the Allen farm in Section 24-2-10w, where a well was drilled to a depth of 2,035 feet, and has some oil standing in the hole. The well is expected to be completed in the near future. The Allen lease is on the west side of the Hansbury Pool, where a number of producers were drilled to the 2,150-foot sand. Green and others' No. 1 Allen in Section 24-2-10w, is producing from sand at 1,579 feet and it flowed 40 bbls. of oil per day for about a year. The well is now on the pump.

M. I. Cunningham and J. D. Loofborough's No. 1 in Section 22-2-11w, is shut down at 112 feet. It is located on a block of 400 acres and on a lease where a number of shallow wells were drilled several years ago that made 50 bbls. of oil each from a total depth of 210 feet.

The activity in southern Oklahoma counties is proceeding at a steady rate during the last few months. During the week ending July 16, two wells were testing and another pair was preparing to start drilling operations in the area south of Duncan in Stephens County. In the same district an old well was abandoned after several attempts had been made to drill it deeper. Scattered activity in the county continues, which aids the area in being the most active in the southern part of the State.

T. Medlin and others' No. 1 Wade, NW cor. NW, Section 11-2s-8w, Stephens County, are preparing to complete their test in the oil sand at 1,378-91 feet.

Continental Oil Co.'s No. 2 Dare, SW cor. SE, Section 2-2s-8w, was rigging up. Meridan Oil Co.'s No. 2 Peck, NW cor. SW, Section 1-2s-8w, was also rigging up. J. D. Loofborough and others' No. 1 Dare, SW cor. NW NW, Section 1-2s-8w, was abandoned after efforts to deepen this test, which was taken over from Crane & Rankin at 1,755 feet.

The Comanche district has the following active operations: G. Pace's No. 13 A. Watkins, SE cor. NE NE SE, Section 21-2s-7w, Stephens County, made 150 bbls. of oil from the sand at a total depth of 1,732 feet. The same operator has six other tests drilling in the same area.

Atoka County

Hicks and others' No. 2 Norris, NE cor. NW SE Section 15-1-15, is a rig. Wilkinson and others' No. 1 Miller, SW cor. NE NW Section 26-1-14, was spudding. Newman and others' No. 1 Bassett, C NW Section 18-1-15, was spudding.

Caddo County

Mid-Kansas Oil & Gas Co.'s No. 2 Jones, SE cor. SW SE Section 31-6-9w, is a rig on the ground.

Creek County

J. E. Abbott's No. 1 Unknown, NW cor. SE NW Section 26-19-9, is a location. Gled Oil Co.'s No. 1 Hutton, NE cor. NW NE Section 5-18-9, is a location. Fogle and Marble's No. 1 Burton, C E half NE SW Section 7-19-8, is a rig. A. W. Swift and others' No. 2 Ford (twin), NW cor. NE NW Section 10-19-9, was completed for 750,000 feet of gas a day from sand at 1,247-87 feet. Kemp and Nunnalee's No. 1 Benson, NW cor. Section 31-17-7, was abandoned at 2,876-84 feet. Magnolia Petroleum Co.'s No. 4 Mickey, NE cor. SE NE Section 4-16-7, an old well drilled deeper, was abandoned at 2,869 feet, a dry hole. Pure Oil Co.'s No. 1 Steele, NE cor. SW Section 6-15-7, an old well drilled deeper, total depth 3,670 feet, was rigging up.

Hughes County

Hudspeth and others' No. 1 Harrod, SW cor. NE Section 3-8-8, is a location. Head Petroleum Co.'s No. 1 Breeding, SE cor. NE NE Section 12-7-8, was a rig and has been abandoned.

Logan County

Ramsey Petroleum Corp.'s No. 1 Baker, NW cor. NE Section 10-16-4w, is a rig on the ground.

Marshall County

C. M. Carrall's No. 2 Little, SE cor. NE Section 25-7s-6, was spudding.

Carter County

Schermerhorn-Ardmore Oil Co.'s No. 4 Wilson, NE cor. SW NE SE Section 23-4s-3w, was completed for 10 bbls. from 1,185-1,200 feet.

Muskogee County

Allred and others' No. 1 Drew, NW cor. SW NE Section 17-13-16, an old well drilled deeper, was rigging up.

Osage County

Bay Oil Co.'s No. 1, SE cor. NE NW Section 13-23-7, was completed for 870 bbls. from the pay at 2,895-2,915 feet.

Okmulgee County

Buckingham & Peale's No. 1 Luckey, C SW NE Section 18-13-13, is a rig. N. D. Pestenger's No. 12 Connor, C W L NE NW Section 6-14-15, was abandoned at 1,070 feet.

Oklahoma County

Phillips Petroleum Co.'s No. 3 Mosey, SE cor. NE NW Section 3-11-3w, is a rig. W. N. Milan and others' No. 1 Garvin, SE cor. NW NW Section 10-11-3w, is a rig. Denver Producing & Refining Co.'s No. 1 Johnson, C W L NW NE Section 22-11-3w, made 1,778 bbls. of oil in four hours from sand at 6,475-6,540 feet.

Pontotoc County

Beebe Oil Co.'s No. 1 Starrett, SE cor. Section 29-5-5, is a rig. Stanolind Oil & Gas Co.'s No. 2 Allen, NE cor. Section 32-5-5, is spudding. Superior Oil Co.'s No. 7 Mauldin, NE cor. SW NW Section 32-5-5, made 130 bbls. of oil from 2,510-24 feet. Fleetborn Oil Co.'s No. 2 Brown, NE cor. SE NE Section 28-5-6, was abandoned at 1,757 feet.

Seminole County

Jones and Hatcher and others' No. 1 Harris, SE cor. NW NW Section 22-10-7, is a rig. Gypsy Oil Co.'s No. 1 Rentie, NE cor. Section 17-6-6, was digging a cellar. R. D. Donnely and others' No. 1 Shepard, SE cor. NE Section 4-8-8, was spudding. The Texas Company's No. 2 Sandlin, NE cor. SE SW Section 29-9-6, was completed for 1,080 bbls. of oil from 4,095-4,120 feet.

Stephens County

Stogner and others' No. 2 Peck, NW cor. SW Section 1-2s-8w, is a location.

Wildcat Operations in Oklahoma

NORTHERN OKLAHOMA

ALFALFA COUNTY

Company, farm and location— Remarks:

Smith Brothers' No. 1 Forbes, SE cor. NW NW Sec. 12-27-11w ..... S.D. 1,232 ft.
J. W. Bailey's No. 1 Acra, SW cor. NE Sec. 14-24-11w.. S.D. 5,502 ft.

ATOKA COUNTY

Willis et al's No. 1 Roland, NW NE SE Sec. 6-1-15 ..... S.D. 630 ft.
Hicks et al's No. 1 Norris, NE NW SE Sec. 15-1-15 ..... Machine.
Newman et al's No. 1 Bassett C NW Sec. 18-1-15 ..... Drlg. 80 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w ..... Rig.
Price-McFann's No. 1 Webster, C SW SW Sec. 34-8-26w.. T.D. 2,344 ft.; plugged back to 1,890-1,900 ft.; 1,500,000 ft. gas.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-23-23w ..... S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w ..... S.D. 3,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w ..... S.D. 280 ft.
Washoma Oil Co. et al's No. 1 Phillips, C NW SW Sec. 13-19-10w ..... S.D. 6,115 ft.

CADDO COUNTY

Abernathy & Brown's No. 3 Houston, Sec. 24-6-13w ..... S.D. 1,115 ft.

CHEROKEE COUNTY

La Fiere et al's No. 1 Woods, C SE SE Sec. 27-17-21 .... S.D. 1,504 ft.

COAL COUNTY

Radial Oil Co.'s No. 1 McGraw, NE NW Sec. 2-1s-8 ..... S.D. 1,450 ft.

COMANCHE COUNTY

T. E. Bradley et al's No. 1 Pruitt, NE SW SE Sec. 6-1-9w. Drlg. 1,800 ft.
G. W. Stogner's No. 1 Doebal, C SW SW Sec. 3-3-9w..... S.D. 1,450 ft.

CREEK COUNTY

E. L. Jillson et al's No. 1 Starr, SE NW, Sec. 18-15-8 .... Drlg. 817 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 13-14-14w ..... Location.

ELLIS COUNTY

L. C. Hierek's No. 1 Roper, C SE NW Sec. 21-20-24w .... Rig on ground.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE, Sec. 32-3-7w ..... Drlg 2,694 ft.
Schoonmaker et al's No. 1 Station, NW cor., Sec. 35-4-7w.. T.D. 2,162 ft.; S.D.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w.. S.D. 5,850 ft.

GREER COUNTY

Dovell et al's No. 1 Capell, NW cor. Sec. 1-7-22w..... 5,000,000 ft. gas 1,455-65 ft.; T.D. 1,760 ft.
French's No. 1 Murphy, SW NW Sec. 23-7-21w..... S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19 ..... S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9 ..... S.D. 200 ft.

HUGHES COUNTY

Hudspeth et al's No. 1 Harron, NW NE Sec. 3-8-8 ..... Location.

KAY COUNTY

Bluebaugh et al's No. 1 Indian, C NW NE Sec. 30-25-1... 10,000,000 ft. gas 2,555-63 ft.; mudding off gas.
Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1 ..... Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2 ..... S.D. 2,693 ft.
Blackwell Oil Co.'s No. 1 Harshman, Sec. 2-26-1w ..... Rig on ground.

KIOWA COUNTY

Christian's No. 1 Jones, NE SE Sec. 8-7-18w..... Drlg. 1,225 ft.

LATIMER COUNTY

P. English's No. 1 Unknown, NW SE Sec. 16-6-19 ..... S.D. 1,542 ft.

LINCOLN COUNTY

Hilton Phillips' No. 1 Phillips, SW NW Sec. 3-14-3 ..... Show oil and water; 8-in. csg.; swabbing; T.D. 5,060 ft.; P.B. to 4,055-78 ft. to cement off water.
Mote et al's No. 1 School Land, NW cor. Sec. 36-17-5 ... S.D. 3,570 ft.

NOBLE COUNTY

Wentz Oil's No. 1 Wolff, C SE NW Sec. 17-20-2w..... Drlg. 55 ft.

OKLAHOMA COUNTY

Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w ..... S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w ..... S.D. 5,515 ft.

OSAGE COUNTY

Mohawk Oil Co.'s No. 1, NE cor. Sec. 10-26-9 ..... Drlg. 675 ft.

PAWNEE COUNTY

Rockstool's No. 1 Wylie, NW NE SW Sec. 6-20-5 ..... S.D. 1,950 ft.

PITTSBURG COUNTY

Nelson & Flynn's No. 1 Anderson, NE SW, Sec. 12-7-13... Rig.
J. Morrison's No. 1 Fowler, NE SE Sec. 13-7-17 ..... Rig.
C. Kennedy's No. 1 Travis, C SW NE Sec. 15-7-14 ..... Rig.
Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14 ..... S.D. 750 ft.

PONTOTOC COUNTY

Edna Marie's No. 1 McWhirt, NE SE Sec. 11-2-6 ..... Drlg. 495 ft.
Vanderslice's No. 1 Meredith, NE SW, Sec. 17-2-4 ..... Show oil 296-368 ft.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8 ..... Drlg. 485 ft.

POTTAWATOMIE COUNTY

Brown et al's No. 1 Sauter, NW cor. Sec. 35-11-4 ..... Digging cellar.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 33-12-24w..... S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w..... S.D. 3,420 ft.

SEMINOLE COUNTY

Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8 ..... Spudding.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 33-9-17w ..... Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w ..... Show oil 2,459-67 ft.; S.D. 2,757 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18 ..... S.D. 1,770 ft.

OKLAHOMA PANHANDLE

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW Sec. 11-1-1E .. T.D. 4,720 ft.: to cement.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Morris et al's No. 1 Ray, NE NW NE Sec. 8-3S-12 ..... Drlg. 400 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 18-3s-10 ..... S.D. 1,967 ft.

BRYAN COUNTY

Hughes' No. 1 Ayres, NE SW Sec. 30-7S-7 ..... S.D. 325 ft.

CARTER COUNTY

Russell's No. 1 Ratliff, NW NE NW SW Sec. 19-1s-2w ... Drlg. 1,440 ft.

JEFFERSON COUNTY

Smith's No. 1 McCarty, SE NW NE Sec. 18-4s-8w..... Location.

MARSHALL COUNTY

J. T. Hogan's No. 1 Thompson, NE NW NE, Sec. 26-7s-6.. Location.
Trailkill et al's No. 1 Spence, NE NW Sec. 10-7s-6..... T.D. 917 ft.; S.D.
Liggett et al's No. 1 McDuffee, SE NE Sec. 1-7s-4 ..... Pumping 40 bbls. 305-89 ft.; comp.

McCURTAIN COUNTY

Prassell et al's No. 1 Wagoner, SE NE Sec. 5-8s-27 .... Show oil 560 ft.; 620 ft S.D.
Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25.. Coring 2,735 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18 ..... S.D. 1,950 ft.

STEPHENS COUNTY

Gillette Bros' No. 1 Cooley, NW SE NW Sec. 17-2s-8w. Rig.
George's No. 1 Ryan, NW SW NE Sec. 21-2-15 ..... S.D. 510 ft.

Wildcat Operations in Texas Panhandle

(Continued from Page 16)

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersil, 330 ft. from N, 1,320 ft. from E. Sec. 46, Blk. B, John H. Stevens Sur. ..... Spudded.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3n-3e ..... T.D. 925 ft; U.R. 12½-in. csg.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ..... S.D. 2,438 ft.

Bell O. & G. Co.'s No. 1 Tedesco-Webb, 330 ft. from S and E, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Rigging up cable tools.

Boyce et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur. ..... S.D. 1,650 ft.

Danciger O. & R. Co.'s No. 3 Williams, 150 ft. from N, 1,650 ft. from W S half NW, Sec. 7, Blk. 1, A.C.H.& B. Sur. ..... Drlg. 2,000 ft.

Elbar Corp.'s No. 1 Sethings, 330 ft. from S and E, Sec. 18, Blk. A-9, H.&G.N. Sur. ..... T.D. 2,756 ft; shot with 20 qts. 2,-618-28 ft.

Granite Prod. Co.'s No. 1 Chapman, 375 ft. from N line, 110 ft. from W line, 8½ SW, Sec. of Blk. 26, H. &G.N. Sur. ..... S.D. 2,900 ft.

Gulf Prod. Co.'s No. 7 Saunders, 330 ft. from N and W, SW, Sec. 40, Blk. 3, I.&G.N. Sur. ..... Rotary rig.

Jewel Oil Co.'s No. 1 Meora, 330 ft. from S and W, NW SW, Sec. 106, Blk. 3, I.&G.N. Sur. ..... Fishing 3,335 ft.

Mazda-Shell's No. 2 Worley Reynolds, 660 ft. from S and E of NE, Sec. 35, Blk. 3, I.&G.N. Sur. ..... S.D. 2,736 ft.

Nipper et al's No. 1 Morse, 330 ft. from N and E, Sec. 1, Blk. 24, I.&G.N. Sur. ..... Fishing 2,635 ft.

Naheb Oil Co.'s No. 1-E Morse, 330 ft. from S and W, W½ SE, Sec. 67, Blk. 25, H.&G.N. Sur. ..... T.D. 2,623 ft; 500 ft. oil in hole.

Parton & Holt's No. 2 Morse, 330 ft. from W, 550 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Drlg. 2,170 ft; gas at 2,065 ft. and 2,115 ft.

Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Standardizing.

Pulse-Shell Pet. Corp.'s No. 1 Culler, 330 ft. from S and E, Sec. 173, Blk. 3, I.&G.N. Sur. ..... Drlg. plug 2,562 ft.

Pulse-Shell's No. 1 Brown, 390 ft. from N, 350 ft. from E of NW, Sec. 128, Blk. 3, I.&G.N. Sur. ..... Rig.

Salisbury et al's No. 1 Davidson, 330 ft. from S and W, Sec. 37, Blk. B-2, H.&G.N. Sur. ..... T.D. 3,043 ft; pumping 40 bbls. day; to shoot.

Saunders et al's No. 2 Sullivan, 822 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, I.&G.N. Sur. ..... Will plug back to 3,375 ft. and shoot.

Tarber's No. 1 Saunders, 330 ft. N and W, Sec. 3, Blk. 1, B.B.&S.F. Sur. ..... Location.

Tedesco Oil Co.'s No. 3 Morse, 330 ft. from N and E of NE SW, Sec. 1, Blk. 24, H.&G.N. Sur. ..... T.D. 2,515 ft; T.P. 2,465 ft; hole bridged when shot.

The Texas Co.'s No. 4 Bull, 1,65 ft. from S, 330 ft. from W, Sec. 2, Blk. B-2, H.&G.N. Sur. ..... Drlg. 1,940 ft.

The Texas Co.'s No. 5-D McLarty & Lester, 990 ft. from N line, 950 ft from W line, Sec. 3, B.&B. Sur. ..... Drlg. 400 ft.

The Texas Co.'s No. 7 Bowers, 990 ft. from S line, 330 ft. from W line, Sec 89, Blk. B-2, H.&G.N. Sur. ..... T.D. 3,088 ft; testing.

The Texas Co.'s No. 10 Cook-Faulkner, 330 ft. from S, 1,405 ft. from W, Sec. 29, Blk. B-2, H.&G.N. Sur. ..... Skidded rig 50 ft. east.

The Texas Co.'s No. 10 Williams, 150 ft. from S, 1,650 ft. from W, Sec. 7, Blk. 1, A.C.H.&B. Sur. ..... Drlg. 2,330 ft.

Thorp et al's No. 1 Short, 330 ft. from N and E, Sec. 2, Blk. 1, H.&G.N. Sur. ..... Drlg. 900 ft.

Trippiehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ..... Rig up standard tools.

Travis et al's No. 2-B Webb, 990 ft. from S, 330 ft. from E of NW, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Rig.

Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ..... Shut down.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E, G. S. Hood Sur. ..... To deepen old well; T.D. 5,055 ft. rigging up.

HUTCHINSON COUNTY

Baso's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. ..... T.D. 3,080 ft.; estm. 5 or 10 bbls., may plug.

Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.

Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur. ..... S.D. 450 ft.

Holmes & Newblock's No. 2 Moore-Langdon, 330 ft. from N and W, Sec. 125, Blk. 4, I.&G.N. Sur. ..... S.D. for repairs 2,947 ft.

Huber Pet. Co.'s No. 1-A Weatherly, 330 ft. from N and W, Sec. 26, Blk. Y, A.&B. Sur. ..... Cmtd. csg. 2,935 ft.

Huber Pet. Co.'s No. 2 Christian, 330 ft. from S and E, SW, Sec. 33, Blk. Y, A.&B. Sur. ..... Cellar.

Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 6, Blk. 1, B.&B. Sur. ..... Plugged back to 3,146 ft.; S.D.

Oates & Morrow's No. 2 Starnes, 1,400 ft. from S, 630 ft. from E, Sec. 34, Blk. M-23, T.C.R.R. Sur. ..... Rig.

Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ..... Shut down.

Rock Creek Oil Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ..... Rig.

Timms-Deatch's No. 4 Moore, 330 ft. N and W, Sec. 124, Blk. 4, I.&G.N. Sur. ..... Rig.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... S.D. 240 ft.

Interstate's No. 1 Nield, C NE, Sec. 18, Blk. 44, H.&T. C. Sur. ..... Rig up.

Pollard et al's No. 1 Hall, 330 ft. S and E, NE, Sec. 131, Blk. 3-T, T.&N.O. Sur. ..... Rig on ground

Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 360, Blk. 44, H.&T.C. Sur. ..... Drlg. 2,470 ft.

Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ..... Rig.

Sunray Oil Co.'s No. 2 Jones, 330 ft. N and W, W½ SW, Sec. 164, Blk. 3-T, T.&N.O. Sur. ..... Rig.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ..... S.D. 400 ft.

Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. S, G.C.&S.F. Sur. ..... U.R. 3-in. csg. 3,883 ft.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... Cmtd. cave 4,090 ft.

Travis et al's No. 1 Cunningham, 330 ft. S and W, Sec. 74, Blk. M-2, H.&G.N. Sur. ..... S.D. 2,690 ft.

WHEELER COUNTY

Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ..... Moving in tools to test; T.D. 2,760 ft.

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Two Drilling Records Made in California, With Prospect of Having World's Deepest Hole

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., July 16.—Two new drilling records were hung up in California during the past week and, unless something unforeseen develops, California will have the world's deepest hole within another few days. This potential record breaker is No. 1 Bradley of the Western Gulf Oil Co., a wildcat in the Santa Maria district of Santa Barbara County, which late this week was rotating ahead at 10,285 feet. This wildcat is within 300 feet of the existing record for depth established in the Penn Mex Fuel Corp.'s No. 35 Jardin in the Tuxpam district of Mexico, which was bottomed at 10,585 feet. The Western Gulf's Santa Maria wildcat was still in brown shale late this week and in addition to being the deepest hole ever drilled in California, it likewise has the distinction of penetrating the greatest thickness of brown shale encountered in any California well.

The Associated Oil Co. is believed to have broken the world's record for deep commercial production when No. 83 Lloyd in the Ventura Avenue Field was brought in flowing 5,500 bbls. of 28.7 gravity oil per day from 9,709 feet. This new well was finished in the 57 zone originally discovered in April, 1931, when No. 57 Lloyd was brought in flowing 4,850 bbls. per day. Only two wells have been completed in this deep zone and, since they were drilled for exploratory purposes, deep zone exploitation will not become a factor in this field for some time to come. No. 57 Lloyd was shut in immediately subsequent to completion and it is quite probable that the Associated will likewise suspend production activities on the latest record breaker, No. 83 Lloyd. There is very little drilling under way in the Ventura Avenue Field at the present time and, while a few new wells will be started from time to time, operators in this field are definitely committed to a restriction in drilling.

Kettleman Hills

The Kettleman North Dome Association successfully completed well No. 21-1 P in the Kettleman North Dome Field during the early part of the current week and this new well was brought in flowing 4,295 bbls. of exceptionally clean 34.9 gravity oil per day from 8,997 feet. This well had the distinction of being the deepest commercial producer in California for a few days, as it was 174 feet deeper than No. 57 Lloyd, the previous record holder. Upon the completion of No. 83 Lloyd at 9,709 feet the deep production record again reverted to the Associated Oil Co. at Ventura Field. The North American also chalked up a new completion in the Kettleman North Dome Field during the current week when No. 1 Elsinore in Section 36-21-17 was recompleted after being plugged back from 9,578 feet to 8,500 feet and recompleted flowing at the rate of 1,500 bbls. per day. The North American was unsuccessful in developing deep commercial production in either No. 1 Elsinore or No. 1 Blauvelt, both of which are located out on the north flank. The Kettleman North Dome Association is completing preparations to finish another new well in the Kettleman North Dome Field some time during the next fortnight and unless something unforeseen develops at the last minute, substantial production should be secured. Kenda's next projected completion is well No. 61-2 P, which is being conditioned preparatory to the landing of an oil string. In the Middle Dome the Petroleum Securities is still held up with mechanical trouble in No. 1 Burbank and an ultimate recovery is extremely doubtful. The Standard recemented its well No. 6-29 V, following a wet job, and an early test will be conducted. The outcome of work on this well is of paramount importance because if clean production is developed it will definitely prove up the Kettleman Middle Dome as a field of considerable importance. As the situation stands at the present time, some doubt exists as to whether the lower portion of the Temblor in the Middle Dome is wet as both the Standard and Petroleum Securities got water along with the production in the lower part of the hole. This might be a coincidence as it is not at all impossible that both wells had defective water shut-off jobs. Some are inclined to believe that the water which appeared in the Standard Oil Co.'s deep test in the Middle Dome is entering the oil sand through No. 1 Burbank of the Petroleum Securities. This probably accounts for the extended fishing job on No. 1 Burbank.

Midway-Sunset

The Standard Oil Co. is reconditioning No. 1 Mascot, a deep well in the Midway-Sunset Field of Kern County, preparatory to a resumption of drilling at 9,629 feet. Within the next few days the company should begin making new hole and operators will be in a position to determine definitely whether this well is a potential producer or somewhat overrated. Because of its importance, work on No. 1 Mascot will be watched with special interest. This well, the deepest to be drilled in the Midway-Sunset Field up to the present time, is of paramount importance because it may determine the status of this and other San Joaquin Valley fields during the course of the next few years. If No. 1 Mascot proves to be a dry hole it will consequently retard deep drilling, at least until conditions improve. If, on the other hand, commercial production is developed, it may stimulate deep drilling, provided of course that the existing price structure is maintained for crude oil. Because of its possible effect on future drilling, No. 1 Mascot of the Standard is one of the most important tests under way in the San Joaquin Valley at the present time.

Lost Hills-Belridge

There has been considerable discussion recently as to the probability of deep zone exploitation in the North Belridge Field of Kern County, but despite the general belief that operators in this area expect to drill several new deep holes there is no tangible evidence of such a procedure at the present time. The fact that the Belridge Oil Co. shut in its recent completion in the new deep zone tends to discount the probability of competitive drilling. Operators in this field have a gentlemen's agreement to observe curtailment regulations and refrain from unnecessary drilling. If the Belridge Oil Co. should open up its new well in the deep zone, operators would of course be obliged to immediately initiate offsetting work. It is highly probable that drilling operations in the North Belridge Field will be kept down to a minimum, especially because of the necessity of observing curtailment work and the desire of operators to refrain from all unnecessary drilling. Operators in the Lost Hills Field are likewise expected to refrain from unnecessary development with the result that no new wells are expected to be started in this area for several months.

Fruitvale

The Western Gulf Oil Co., discoverer of the Fruitvale Field of Kern County, successfully completed well No. 12 on the Kern County Land Co.'s Lease B, and this new producer showed an initial daily production of 460 bbls. of 21.9 gravity oil per day from 3,783 feet. The Gulf's No. 1 Bittle, finished at 3,980 feet, proved wet when swabbed in a few days ago, and evidence points strongly to the possibility that bottom water has been encountered. Several new wells are being started in this field and indications point to the probability that a number of new wells will be completed during the course of the next few months. Fruitvale crude, although of a somewhat inferior grade from a refining standpoint, has become a factor in both the fuel and refined oil markets with the result that it has had a tendency to weaken the general price structure. It is interesting to note that while the Mohawk Oil Co. has been refining Fruitvale crude, other companies have used this oil to meet fuel oil requirements. Because of its low gasoline content, the General Petroleum has been blending it with Kern River crude and disposing of it through the Santa Fe Railroad. This blend reduces the viscosity of the Kern River crude, which has a high B.tu. value and when properly blended results in a commercial fuel with a heating value of approximately 1,900 British thermal units.

Buttonwillow

The Milham Exploration Co., discoverer of the Buttonwillow Gas Field of Kern County, is pursuing an aggressive but conservative development program in the hope that a sufficient demand will be available to permit production activities during the coming winter. The Milham interests have a contract with the Pacific Gas & Electric Co. covering the disposal of natural gas during the next several years, but it remains to be seen whether the company will be able to produce and market dry gas in competition with oil gas. Due to decreased demand reflecting curtailment of manufacturing opgrations, it seems logical to assume that there will be a superabundance of oil gas to meet normal requirements during the coming winter months. Buttonwillow went on commercial production for a limited period during the past winter and may possibly make commercial deliveries again during the approaching period of higher gas consumption. Kettleman Hills and Ventura Avenue hold the key to gas production during the winter period as each area is capable of substantially increasing natural gas production. Because of their enormous potential gas production they will have a decided effect on the production of gas in exclusive gas fields. State officials have heretofore given preference to gas produced in oil fields and there is no reason to believe that this position will be changed.

Kettleman Hills operators won a further respite from threatened contempt proceedings for violation of the California gas conservation law when Superior Judge S. L. Strother continued the hearing for modifications of the injunction order until October 11. The Standard Oil Co. of California and the Kettlemen North Dome Association convinced the court that a temporary working agreement had reduced the waste of natural gas in the Kettleman North Dome Field to a daily average of approximately 13,000,000 feet. Because of this progress and in view of the fact that this waste only constitutes about 7 per cent of the total daily production, Judge Strother granted a continuance of three months. The association informed the court that it had a new compressor plant under construction which would further decrease the waste of natural gas. This new unit will be used to handle the low pressure gas which up to the present has been the subject of considerable controversy.

Long Beach

The Gold Seal Corp. successfully recompleted No. 1 Emblem in the Long

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	147,070	987,362
Gasoline	194,269	27,753	129,238	18,463	4,396,351	7,688,943
Kerosene	.....	.....	.....	.....	154,372	89,109
Foreign exports—						
Crude oil	124,070	17,724	284,409	40,630	4,614,853	3,759,091
Fuel oil	98,711	14,102	72,191	10,313	4,597,950	7,751,806
Diesel and gas oil	65,238	9,320	73,027	10,290	1,391,215	2,085,609
Gasoline	325,369	46,481	192,443	27,492	4,947,520	4,703,373
Kerosene	90,815	12,974	12,608	1,801	1,335,636	801,210
Lubricants	.....	.....	.....	.....	.....	18,978
Naphtha distillates	44,650	6,379	.....	.....	120,075	.....
Coastwise-domestic—						
Crude oil	322,098	46,157	271,595	38,942	7,289,303	11,098,350
Fuel oil	146,849	20,978	262,283	37,469	6,430,748	7,021,861
Diesel and gas oil	11,563	1,652	15,367	2,195	703,364	823,036
Gasoline	231,182	33,026	370,589	52,941	7,974,194	7,226,066
Kerosene	.....	.....	12,524	1,789	92,695	196,654
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	79,950	11,436	.....	.....	231,170	.....
Gasoline	.....	.....	61,955	8,851	430,185	405,469
Lubricants	.....	.....	.....	.....	15,824	21,990
Foreign exports—						
Crude oil	.....	.....	.....	.....	707,651	107,736
Fuel oil	60,450	8,636	.....	.....	582,109	720,901
Diesel and gas oil	.....	.....	.....	.....	352,107	294,703
Gasoline	5,451	779	160,013	22,859	1,911,725	2,256,797
Kerosene	2,325	332	54,670	7,810	548,858	440,002
Lubricants	.....	.....	.....	.....	24,934	.....
Naphtha distillates	.....	.....	.....	.....	.....	20,100
Coastwise-domestic—						
Fuel oil	22,130	3,161	.....	.....	1,463,445	2,207,444
Diesel and gas oil	.....	.....	.....	.....	238,654	195,112
Gasoline	90,660	12,943	111,160	15,880	1,832,815	1,791,111
Kerosene	.....	.....	.....	.....	65,756	147,990
Naphtha distillates	.....	.....	.....	.....	.....	49,730

Beach Field of Los Angeles Basin during the early part of the past week and this well was returned to production pumping 348 bbls. of 27.4 gravity oil per day from 5,873 feet. The Gold Seal Oil Corp.'s No. 1 Emblem was originally drilled by the Magna Oil Co. and finished several years ago as a 500-bbl. well. The Magna Oil Co. completed this well at 5,714 feet and it produced 75,000 bbls. of oil before it was killed because current production had declined to the point where economic production was impossible. No. 1 Emblem of the Gold Seal Oil Corp. is of particular interest because it is located on the smallest lease in California, which, in view of the many town lot drilling campaigns, is a rather unique distinction. The Emblem lease, which was originally designed for the location of a flag pole because of its unusual size and shape, is at the junction of three streets and measures 30'x40'x36'. In order to develop this property, the Magna Oil Co constructed a 12-foot retaining wall on one side of the lease and put the sump hole in the cellar beneath the floor of the rig. This project was drilled with electric equipment for obvious reasons. The Dabney-Johnston Oil Corp. also put a well on production in the Long Beach Field during the past week, although its project, No. 85 Signal, was only good for 82 bbls. of 85.1 gravity oil per day from 5,040 feet.

Seal Beach

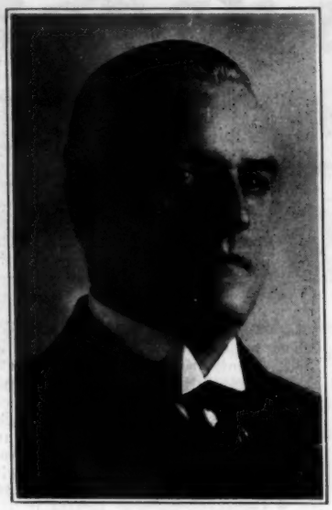
The Standard Oil Co. finished a new well in the Seal Beach Field of Los Angeles Basin and increased its daily production 302 bbls. of 27.1 gravity oil per day when No. 25 San Gabriel was put on a production test. This new well, bottomed at 6,322 feet, but subsequently plugged back to 6,245 feet, was finished with a 6⅝-inch liner, including 314 feet of perforated and 6,193 feet of 3-inch tubing. With the completion of this well there is only one incompleted drilling project under way in the Seal Beach Field at the present time. This is No. 34 Bixby of the Continental Oil Co., now down 4,510 feet. There were no developments of special importance in the Playa Del Rey Field during the week, although there is a tendency toward reconditioning lower zone wells and the deepening of former heavy producers in the upper zone. This field, despite the reconditioning work under way, has ceased to be a factor of any considerable importance except in so far as it is capable of producing in excess of its established allotment under the curtailment program. It has ceased to be a field of major importance and will gradually become of less importance as time goes on due to normal decline. There are really only three good wells in the Playa Del Rey Field at the present time. These are No. 4 Del Rey and No. 1 Vidor of the Union Oil Co. and the Pacific Shore Oil Co.'s well No. 3.

The Pacific National Oil Co.'s well No. 5 in the Inglewood Field of Los Angeles Basin, taken over a few weeks ago by W. A. Kyle, is being prepared for a preliminary production test at 4,318 feet. This well, located around the edge of the Inglewood Field, looks fairly promising, although it is rather hazardous to venture an opinion one way or the other on an edge well in any field. Prospectors drilling wells around the edge of the Inglewood Field have not experienced any degree of success up to the present time and, while both Kyle's well No. 5 and No. 9 Brownmoor of the Baldwin Oil Co. might ultimately show an impressive initial daily production, this may not be any true criterion as to the ultimate recovery which, is in the final analysis, is the determining factor between profit and loss. The Shell Oil Co. plugged back No. 9 Rindge a week or so ago to 2,848 feet and returned it to production pumping 115 bbls. of 24.1 gravity oil per day. The plugging job on this well was undertaken primarily to remove any doubt as to whether it was producing from the first or second zones. By plugging the hole back to the upper horizon, the Shell removed any necessity for operators on adjoining acreage for drilling into the second zone. The action of the Shell in plugging off the bottom of this hole is generally attributed to the spudding in of No. 16 Rubel by the Pacific Western Oil Co. It has been generally rumored that the Rubel interests recently demanded the drilling of an offset by the Pacific Western Oil Co. on the assumption that the Shell had been producing the second zone for several years past. The Shell's action in plugging back definitely removes any doubt as to whether it is producing from the first or second zone. From personal knowledge, the writer can confirm the Shell's statement that they are unable to determine which zone is being produced. When this well was drilled into completion it came in rather prematurely and without affording the company an opportunity of correlating the productive formation. The situation was rather complicated due to the existence of a fault in close proximity to the location of this well and consequently some doubt has existed during the past several years as to the exact zone which was being produced. The Shell, in order to remove any doubt, plugged back the lower part of this hole and in doing so eliminated the necessity of any deep drilling on adjacent acreage. Drilling operations have just about been concluded in the Dominguez Field of Los Angeles Basin and work from now on should show a consistent decline. This drop in work may not be especially noticeable as there have only been three or four strings of tools in operation during the past month or so. The Union finished work on No. 16 Hellman and this well has been recompleted flowing 630 bbls. of 31.1 gravity oil per day from 5,213 feet. This just about cleans up the Union Oil Co.'s work in this field as No. 5 Carson and No. 18 Hellman have been temporarily placed on the inactive list. Both of these wells, however, may be recompleted at a later date as the suspension of work is more or less of an arbitrary nature.

DR. VAN H. MANNING DIES IN NEW YORK

NEW YORK, July 18.—Dr. Van H. Manning, retired petroleum engineer, who directed the first researches to make helium practicable, died at his home here this week at the age of 70.

Doctor Manning was director of the Bureau of Mines under President Wilson, resigning in 1920 to become director of research for the American Petroleum Institute, from which position he retired to become a private consultant.



DR. VAN H. MANNING

Born at Horn Lake, Miss., Doctor Manning received his education at the University of Mississippi, graduating in 1881, and beginning his career as civil engineer wth the U. S. Geological Survey in 1886. In 1910 he joined the Bureau of Mines as assistant director, becoming director in 1915.

Foreseeing the entry of the United States into the World War, Doctor Manning early in 1917 started organizing a force of chemical engineers to work on war problems, and when war was formally declared, had a staff of 50 engineers engaged in this work. Under his direction, the first work was conducted on gas masks, flame throwers, signal lights, toxic gases, smoke screens, and incendiary bombs, as wells as experimental work on helium, which at the time cost $1,700 per cubic foot. During the course of his research in helium, he used 1,900 engineers and chemists on the experiments, expending $7,058,478 in the research, which ultimately brought the cost of helium down to 39 cents a cubic foot.

Doctor Manning received the honorary degree of Doctor of Engineering from the University of Pittsburgh in 1919. He was a Fellow of the American Association for the Advancement of Sciences, and member of the American Association of Petroleum Geologists, American Chemical Society, American Institute of Mining and Metallurgical Engineers, American Mining Congress, American Society for Testing Materials, the Coal Mining Institute of America and the Mining and Metallurgical Society of America, and was honorary member of the Petroleum Technologists of London.

CRAIG, COLO., GETS GAS

The Rocky Mountain Gas Co., subsidiary of the Ohio Oil Co., started selling gas to patrons at Craig, Colo., July 1. The supply is coming from one well on a recently proved structure about 3½ miles southwest of Craig.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	9- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Co-operative Dev. Co., No. 1 Del Rey, Los Angeles Co.	26- 2-15	3,614	sd. sh. drilling
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20- 3-14	6,378	suspended
Barcus, W. L., No. 1 Watson, Los Angeles Co.	28- 4-13	rig	suspended
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	4,286	sd. sh. drilling
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	suspended
Kyle, W. A., No. 1 Inglewood, Los Angeles Co.	7- 2-14	4,318	prod. test
Pacific Western, No. 16 Inglewood, Los Angeles Co.	8- 2-14	2,269	sd. sh. drilling
El Dorado Oil Co., No. 1 Puente, Los Angeles Co.	30- 2-9	2,860	suspended
Jones, W. L., No. 1 Bell, Los Angeles Co.	31- 2-12	1,593	suspended
Weist Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	4,902	suspended
Blinn & Gray, No. 1 Montebello, Los Angeles Co.	6- 2-11	5,060	suspended
McNeil, A. W., No. 1 Montebello, Los Angeles Co.	7- 2-11	rig	suspended
Wardell & Menichini, No. 1 Montebello, Los Angeles Co.	7- 2-11	304	suspended
Yellowstone Oil Co., No. 1 Alhambra, Los Angeles Co.	24- 1-13	3,919	suspended
Caballero Estates, No. 1 Calabasas, Los Angeles Co.	23- 1-16	1,604	suspended
Marble, Willard, No. 1 Chatsworth, Los Angeles Co.	6- 2-16	1,395	suspended
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	2,168	sd. sh. drilling
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	7,359	suspended
Nuoli Co., No. 1 Newport, Orange Co.	29- 6-10	1,970	suspended
Abbot, Frank, No. 1 Capistrano, Orange Co.	6- 8-7	mtl.	building rig
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	3,693	sd. sh. drilling
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4-6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25- 1-2	2,392	suspended
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	870	sd. sh. drilling
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	764	sd. sh. drilling
Borderland Oil Co., No. 2 Encinitas, San Diego Co.	29-16-4	2,677	suspended
South Bay Oil Co., No. 1 Border, San Diego Co.	31-18-2	1,243	suspended
Shannon, G. H., No. 1 Kearney, San Diego Co.	14-15-3	446	suspended

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	1,410	hd. sd. drilling
Barnsdall, No. 1 Los Alamos, Santa Barbara Co.	31- 8-33	5,280	br. sh. drilling
Western Gulf, No. 1 Santa Maria, Santa Barbara Co.	5- 9-33	10,285	deep record
Wilson, N. S., No. 1 Los Alamos, Santa Barbara Co.	2- 7-35	4,979	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	2,460	br. sh. drilling
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	5,510	redrilling
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	2,345	suspended
The Texas Company, No. 1 Carpinteria, Santa Barbara Co.	33- 4-25	4,071	sd. sh. drilling
Associated, No. 1 Rincon Creek, Ventura Co.	19- 4-24	2,080	suspended
Woodrow Pet., No. 1 Miguelito, Ventura Co.	4- 3-24	2,997	sd. sh. drilling
Miller, J. W., No. 1 Miguelito, Ventura Co.	23- 3-24	....	grading
Bell, H. H., No. 1 South Mountain, Ventura Co.	22- 3-21	2,484	suspended
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	....	material
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	1,020	sd. sh. drilling
Magu Synd., No. 1 Oxnard, Ventura Co.	17- 1-25	5,812	suspended
American Oil Co., No. 1 Conejo, Ventura Co.	33- 2-20	1,850	hd. sd. drilling
Wilshire Oil Co., No. 1-A Buttonwillow, Kern Co.	7-21-24	7,000	plug 2,500 ft.
Milham Expl. Co., No. 16 Buttonwillow, Kern Co.	7-28-23	2,540	prod. test
Milham Expl. Co., No. 17 Buttonwillow, Kern Co.	17-28-23	rig	rigging up
Purman, T. H., No. 1 McKittrick, Kern Co.	22-29-21	4,610	br. sh. drilling
Welport Oil Co., No. 8 McKittrick, Kern Co.	26-29-21	1,298	prod. test
Welport Oil Co., No. 2 McKittrick, Kern Co.	19-29-21	350	cleaning out
General Pet., No. 1 Belridge, Kern Co.	30-28-21	8,260	suspended
Wallace, K. C., No. 1 Belridge, Kern Co.	32-29-21	4,222	suspended
Rio Grande, No. 1 Shale Hills, Kern Co.	7-27-19	3,020	br. sh. drilling
Rio Cal Pet., No. 1 Shale Hills, Kern Co.	2-27-18	2,355	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,225	suspended
Hannah, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,500	hd. sd. drilling
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	1,060	sd. sh. drilling
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	2,710	sd. sh. drilling
Regina Oil Corp., No. 1 Mojave, Kern Co.	26-10-14	3,147	hd. sd. drilling
Meridian Oil Co., No. 1 Mojave, Kern Co.	11- 9-15	4,000	suspended
Harding, J. B., No. 1 Mojave, Kern Co.	5-10-10	1,030	redrilling
Ritchie, J. J., No. 1 Tejon, Kern Co.	33-11-19	6,025	suspended
Descanso Oil Co., No. 1 Tejon, Kern Co.	31-11-19	2,749	suspended
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Kent & McDonald, No. 1 Carrizo Plains, S. Luis Obispo Co.	3-32-22	2,693	redrilling
Emerich Oil Co., No. 1 Carrizo Plains, S. Luis Obispo Co.	22-32-22	1,615	cemented
Trav-El Oil Co., No. 1 Carrizo Plains, San Luis Obispo Co.	7-32-22	2,450	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Martin, J. D., No. 3 Edna, San Luis Obispo Co.	5-31-13	311	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Schilling, C., No. 1 Atascadero, San Luis Obispo Co.	1-29-12	1,650	suspended
Pacific Inland, Well No. 1, Monterey Co.	19-23-15	2,340	suspended
Brown, W. F., No. 1 Parkfield, Monterey Co.	15-23-14	1,051	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Woodward, Glen, No. 1 Dudley Ridge, Kings Co.	32-22-20	569	suspended
Scott Bros. Drlg. Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,843	suspended
Lacal Natural Gas Co., No. 1 Dudley Ridge, Kings Co.	32-22-20	341	recemented
Kettleman Natural Gas Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,100	suspended
Irma Investment Co., No. 2 Dudley Ridge, Kings Co.	7-23-20	1,224	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	rig	suspended
Eagle Oil Co., No. 2 Dudley Ridge, Kings Co.	15-23-20	1,141	sd. sh. drilling
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	5,694	suspended
Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co.	10-23-16	1,148	suspended
Mid-California Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	grade
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Guess, E. B., No. 3 Dudley Ridge, Kings Co.	12-23-22	1,840	testing
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	reaming
Sheldon & Gholson, No. 1 Porterville, Tulare Co.	34-22-27	683	sd. sh. drilling
Gravity Expl. Co., No. 1 Alpaugh, Tulare Co.	11-24-23	2,207	cleaning out
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8-3	3,034	sd. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	3- 2-10	4,775	sd. sh. drilling
Hilderbrandt, R., No. 1 Crows Landing, Stanislaus Co.	36- 6-7	1,130	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,594	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo County	23-12-3	3,045	suspended
Easton & Monell, No. 1 Colma, San Mateo Co.	25- 3-6	3,130	suspended

were preparing to test showings of oil. The wells were English Drilling Co.'s No. 1 Heenan-Coe, NE cor. SE NE, Section 32-3-7w, which found a showing of oil at 2,675-83 feet and cemented the 8-inch casing on top of this showing. It was the second showing found in the test. Lesh and McCall's No. 1 Slaton, NW cor., Section 35-4-7w, Grady County, has cemented casing on top of a sand showing oil and gas at 1,790 feet. The total depth of the test is 1,820 feet.

In Southern Oklahoma

The shallow fields in southern Oklahoma are getting more active as the result of the strict proration in the gusher fields in the State which is causing the independent operators to return to the shallow areas, where small independent refineries and skimming plants offer a market outlet to producing properties. In many of the shallow pools these refineries are running and the entire output from near-by wells is consumed by these plants.

On the eastern edge of Comanche County, there are two such small refineries operating and a new oil development has started. Landowners in the area report a number of transfers of oil and gas leases recently.

The Shale Oil Co., owner of one of the plants, located about 8 miles east of Lawton, has a capacity of 60 bbls. daily. Another plant owned by the Palmer Refining Co., 12 miles east of Lawton, has a capacity of 90 bbls. daily. Both plants own and operate trucks, to gather the production from wells on nearby leases. When the local fields fail to supply enough crude oil, the trucks are sent to Walters Field, Elgin and other nearby fields for enough crude oil to keep the plants in operation.

The Petroleum Producers Trust, recently secured a lease on the Allen farm in Section 24-2-10w, where a well was drilled to a depth of 2,035 feet, and has some oil standing in the hole. The well is expected to be completed in the near future. The Allen lease is on the west side of the Hansbury Pool, where a number of producers were drilled to the 2,150-foot sand. Green and others' No. 1 Allen in Section 24-2-10w, is producing from sand at 1,579 feet and it flowed 40 bbls. of oil per day for about a year. The well is now on the pump.

M. I. Cunningham and J. D. Loofborough's No. 1 in Section 22-2-11w, is shut down at 112 feet. It is located on a block of 400 acres and on a lease where a number of shallow wells were drilled several years ago that made 50 bbls. of oil each from a total depth of 210 feet.

The activity in southern Oklahoma counties is proceeding at a steady rate during the last few months. During the week ending July 16, two wells were testing and another pair was preparing to start drilling operations in the area south of Duncan in Stephens County. In the same district an old well was abandoned after several attempts had been made to drill it deeper. Scattered activity in the county continues, which aids the area in being the most active in the southern part of the State.

T. Medlin and others' No. 1 Wade, NW cor. NW, Section 11-2s-8w, Stephens County, are preparing to complete their test in the oil sand at 1,378-91 feet.

Continental Oil Co.'s No. 2 Dare, SW cor. SE, Section 2-2s-8w, was rigging up. Meridan Oil Co.'s No. 2 Peck, NW cor. SW, Section 1-2s-8w, was also rigging up. J. D. Loofborough and others' No. 1 Dare, SW cor. NW NW, Section 1-2s-8w, was abandoned after efforts to deepen this test, which was taken over from Crane & Rankin at 1,755 feet.

The Comanche district has the following active operations: G. Pace's No. 13 A. Watkins, SE cor. NE NE SE, Section 21-2s-7w, Stephens County, made 150 bbls. of oil from the sand at a total depth of 1,732 feet. The same operator has six other tests drilling in the same area.

Atoka County

Hicks and others' No. 2 Norris, NE cor. NW SE Section 15-1-15, is a rig. Wilkinson and others' No. 1 Miller, SW cor. NE NW Section 26-1-14, was spudding. Newman and others' No. 1 Bassett, C NW Section 18-1-15, was spudding.

Caddo County

Mid-Kansas Oil & Gas Co.'s No. 2 Jones, SE cor. SW SE Section 31-6-9w, is a rig on the ground.

Creek County

J. E. Abbott's No. 1 Unknown, NW cor. SE NW Section 26-19-9, is a location. Gled Oil Co.'s No. 1 Hutton, NE cor. NW NE Section 5-18-9, is a location. Fogle and Marble's No. 1 Burton, C E half NE SW Section 7-19-8, is a rig. A. W. Swift and others' No. 2 Ford (twin), NW cor. NE NW Section 10-19-9, was completed for 750,000 feet of gas a day from sand at 1,247-87 feet. Kemp and Nunnalee's No. 1 Benson, NW cor. Section 31-17-7, was abandoned at 2,876-84 feet. Magnolia Petroleum Co.'s No. 4 Mickey, NE cor. SE NE Section 4-16-7, an old well drilled deeper, was abandoned at 2,869 feet, a dry hole. Pure Oil Co.'s No. 1 Steele, NE cor. SW Section 6-15-7, an old well drilled deeper, total depth 3,670 feet, was rigging up.

Hughes County

Hudspeth and others' No. 1 Harrod, SW cor. NE Section 3-8-8, is a location. Head Petroleum Co.'s No. 1 Breeding, SE cor. NE NE Section 12-7-8, was a rig and has been abandoned.

Logan County

Ramsey Petroleum Corp.'s No. 1 Baker, NW cor. NE Section 10-16-4w. is a rig on the ground.

Marshall County

C. M. Carrall's No. 2 Little, SE cor. NE Section 25-7s-6, was spudding.

Carter County

Schermerhorn-Ardmore Oil Co.'s No. 4 Wilson, NE cor. SW NE SE Section 23-4s-3w, was completed for 10 bbls. from 1,185-1,200 feet.

Muskogee County

Allred and others' No. 1 Drew, NW cor. SW NE Section 17-13-16, an old well drilled deeper, was rigging up.

Osage County

Bay Oil Co.'s No. 1, SE cor. NE NW Section 13-23-7, was completed for 870 bbls. from the pay at 2,895-2,915 feet.

Okmulgee County

Buckingham & Peale's No. 1 Luckey, C SW NE Section 18-13-13, is a rig. N. D. Pettenger's No. 12 Connor, C W L NE NW Section 6-14-15, was abandoned at 1,070 feet.

Oklahoma County

Phillips Petroleum Co.'s No. 3 Mosey, SE cor. NE NW Section 3-11-3w, is a rig. W. N. Milan and others' No. 1 Garvin, SE cor. NW NW Section 10-11-3w, is a rig. Denver Producing & Refining Co.'s No. 1 Johnson, C W L NW NE Section 22-11-3w, made 1,778 bbls. of oil in four hours from sand at 6,475-6,540 feet.

Pontotoc County

Beebe Oil Co.'s No. 1 Starrett, SE cor. Section 29-5-5, is a rig. Stanolind Oil & Gas Co.'s No. 2 Allen, NE cor. Section 32-5-5, is spudding. Superior Oil Co.'s No. 7 Mauldin, NE cor. SW NW Section 32-5-5, made 130 bbls. of oil from 2,510-24 feet. Fleetborn Oil Co.'s No. 2 Brown, NE cor. SE NE Section 28-5-6, was abandoned at 1,757 feet.

Seminole County

Jones and Hatcher and others' No. 1 Harris, SE cor. NW NW Section 22-10-7, is a rig. Gypsy Oil Co.'s No. 1 Rentie, NE cor. Section 17-6-6, was digging a cellar. R. D. Donnely and others' No. 1 Shepard, SE cor. NE Section 4-8-8, was spudding. The Texas Company's No. 2 Sandlin, NE cor. SE SW Section 29-9-6, was completed for 1,080 bbls. of oil from 4,095-4,120 feet.

Stephens County

Stogner and others' No. 2 Peck, NW cor. SW Section 1-2s-8w, is a location.

Wildcat Operations in Oklahoma

NORTHERN OKLAHOMA

ALFALFA COUNTY

Company, farm and location— Remarks:

Smith Brothers' No. 1 Forbes, SE cor. NW NW Sec. 12-27-11w ..... S.D. 1,232 ft.
J. W. Bailey's No. 1 Acre, SW cor. NE Sec. 14-24-11w.. S.D. 5,502 ft.

ATOKA COUNTY

Willis et al's No. 1 Roland, NW NE SE Sec. 6-1-15 ..... S.D. 630 ft.
Hicks et al's No. 1 Norris, NE NW SE Sec. 15-1-15 ..... Machine.
Newman et al's No. 1 Bassett C NW Sec. 18-1-15 ..... Drlg. 80 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w ..... Rig.
Price-McFann's No. 1 Webster, C SW SW Sec. 34-8-26w.. T.D. 2,344 ft.; plugged back to 1,890-1,900 ft.; 1,500,000 ft. gas.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-12-23w ..... S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 24-10-24w ..... S.D. 3,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w ..... S.D. 280 ft.
Washoma Oil Co. et al's No. 1 Phillips, C NW SW Sec. 13-19-10w ..... S.D. 5,115 ft.

CADDO COUNTY

Abernathy & Brown's No. 1 Houston, Sec. 24-6-13w ..... S.D. 1,115 ft.

CHEROKEE COUNTY

La Fiare et al's No. 1 Woods, C SE SE Sec. 27-17-21 .... S.D. 1,504 ft.

COAL COUNTY

Radial Oil Co.'s No. 1 McGraw, NE NW Sec. 2-1s-8 ..... S.D. 1,450 ft.

COMANCHE COUNTY

T. E. Bradley et al's No. 1 Pruitt, NE SW SE Sec. 8-1-9w. Drlg. 1,800 ft.
G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w..... S.D. 1,450 ft.

CREEK COUNTY

E. L. Jillson et al's No. 1 Starr, SE NW, Sec. 18-15-8 .... Drlg. 817 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 12-14-14w ..... Location.

ELLIS COUNTY

L. C. Hierek's No. 1 Roper, C SE NW Sec. 21-20-24w .... Rig on ground.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE, Sec. 32-3-7w ..... Drlg 2,694 ft.
Schoonmaker et al's No. 1 Station, NW cor., Sec. 35-4-7w.. T.D. 2,162 ft.; S.D.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w.. S.D. 5,850 ft.

GREER COUNTY

Dovell et al's No. 1 Capell, NW cor. Sec. 1-7-22w..... 5,000,000 ft. gas 1,455-65 ft.; T.D. 1,760 ft.
French's No. 1 Murphy, SW NW Sec. 23-7-21w..... S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19 ..... S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9 ..... S.D. 200 ft.

HUGHES COUNTY

Hudspeth et al's No. 1 Harron, NW NE Sec. 3-8-8 ..... Location.

KAY COUNTY

Bluebaugh et al's No. 1 Indian, C NW NE Sec. 30-35-1... 10,000,000 ft. gas 2,556-63 ft.; mudding off gas.
Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1 ..... Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 8-27-2 ..... S.D. 3,693 ft.
Blackwell Oil Co.'s No. 1 Harshman, Sec. 2-26-1w ..... Rig on ground.

KIOWA COUNTY

Christian's No. 1 Jones, NE SE Sec. 8-7-15w..... Drlg. 1,225 ft.

LATIMER COUNTY

P. English's No. 1 Unknown, NW SE Sec. 16-6-19 ..... S.D. 1,542 ft.

LINCOLN COUNTY

Hilton Phillips' No. 1 Phillips, SW NW Sec. 3-14-3 .... Show oil and water; 8-in. csg.; swabbing; T.D. 5,040 ft.; P.B. to 4,056-78 ft. to cement off water.
Mote et al's No. 1 School Land, NW cor. Sec. 36-17-5 ... S.D. 3,570 ft.

NOBLE COUNTY

Wents Oil's No. 1 Wolff, C SE NW Sec. 17-20-2w..... Drlg. 55 ft.

OKLAHOMA COUNTY

Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w ..... S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w ..... S.D. 5,615 ft.

OSAGE COUNTY

Mohawk Oil Co.'s No. 1, NE cor. Sec. 10-26-9 ..... Drlg. 675 ft.

PAWNEE COUNTY

Rockstool's No. 1 Wylie, NW NE SW Sec. 6-20-5 ..... S.D. 1,950 ft.

PITTSBURG COUNTY

Nelson & Flynn's No. 1 Anderson, NE SW, Sec. 12-7-15... Rig.
J. Morrison's No. 1 Fowler, NE SE Sec. 13-7-17 ..... Rig.
C. Kennedy's No. 1 Travis, C SW NE Sec. 15-7-14 ..... Rig.
Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14 ..... S.D. 750 ft.

PONTOTOC COUNTY

Edna Marie's No. 1 McWhirt, NE SE Sec. 11-3-6 ..... Drlg. 495 ft.
Vanderslice's No. 1 Meredith, NE SW, Sec. 17-3-4 ..... Show oil 295-368 ft.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8 ..... Drlg. 485 ft.

POTTAWATOMIE COUNTY

Brown et al's No. 1 Sauter, NW cor. Sec. 35-11-4 ..... Digging cellar.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 33-12-24w..... S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w..... S.D. 3,420 ft.

SEMINOLE COUNTY

Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8 ..... Spudding.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 33-9-17w ..... Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w ..... Show oil 3,459-67 ft.; S.D. 3,757 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18 ..... S.D. 1,770 ft.

OKLAHOMA PANHANDLE

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW Sec. 11-1-1E .. T.D. 4,720 ft.; to cement.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Morris et al's No. 1 Ray, NE NW NE Sec. 8-2s-12 ..... Drlg. 400 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 18-3s-10 ..... S.D. 1,967 ft.

BRYAN COUNTY

Hughes' No. 1 Ayres, NE SW Sec. 30-7S-7 ..... S.D. 325 ft.

CARTER COUNTY

Russell's No. 1 Ratliff, NW NE NW SW Sec. 19-1s-2w ... Drlg. 1,440 ft.

JEFFERSON COUNTY

Smith's No. 1 McCarty, SE NW NE Sec. 18-4s-8w..... Location.

MARSHALL COUNTY

J. T. Hogan's No. 1 Thompson, NE NW NE, Sec. 26-7s-6.. Location.
Trailkill et al's No. 1 Spence, NE NW Sec. 10-7s-6 .... T.D. 917 ft.; S.D.
Liggett et al's No. 1 McDuffee, SE NE Sec. 3-7s-6 .... Pumping 40 bbls. 805-09 ft.; comp.

McCURTAIN COUNTY

Prassell et al's No. 1 Wagoner, SE NE Sec. 5-8s-27 ..... Show oil 560 ft.; 630 ft S.D.
Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25.. Coring 2,735 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-15 ..... S.D. 1,950 ft.

STEPHENS COUNTY

Gillette Bros.' No. 1 Cooley, NW SE NW Sec. 17-2s-8w. Rig.
George's No. 1 Ryan, NW SW NE Sec. 21-2-15 ..... S.D. 510 ft.

Wildcat Operations in Texas Panhandle

(Continued from Page 16)

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersil, 330 ft. from N, 1,320 ft. from E, Sec. 40, Blk. B, John H. Stevens Sur. ..... Spudded.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3n-5e ..... T.D. 925 ft; U.R. 12½-in. csg.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ..... S.D. 2,438 ft.

Bell O. & G. Co.'s No. 1 Tedesco-Webb, 330 ft. from S and E, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Rigging up cable tools.

Bayes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur. ..... S.D. 1,650 ft.

Danciger O. & R. Co.'s No. 3 Williams, 150 ft. from N, 1,650 ft. from W S half NW, Sec. 7, Blk. 1, A.C.H.& B. Sur. ..... Drlg. 2,000 ft.

Elbar Corp.'s No. 1 Sothings, 330 ft. from S and E, Sec. 13, Blk. A-9, H.&G.N. Sur. ..... T.D. 2,756 ft; shot with 20 qts. 2,-618-28 ft.

Granite Prod. Co.'s No. 1 Chapman, 275 ft. from N line, 110 ft. from W line, S½ SW, Sec. of Blk. 26, H. &G.N. Sur. ..... S.D. 2,900 ft.

Gulf Prod. Co.'s No. 7 Saunders, 330 ft. from N and W, SW, Sec. 40, Blk. 3, I.&G.N. Sur. ..... Rotary rig.

Jewel Oil Co.'s No. 1 Meers, 330 ft. from S and W, NW SW, Sec. 106, Blk. 3, I.&G.N. Sur. ..... Fishing 3,335 ft.

Mazda-Shell's No. 2 Worley Reynolds, 660 ft. from S and E of NE, Sec. 35, Blk. 3, I.&G.N. Sur. ..... S.D. 2,736 ft.

Nipper et al's No. 1 Morse, 330 ft. from N and E, Sec. 1, Blk. 26, I.&G.N. Sur. ..... Fishing 2,635 ft.

Nabob Oil Co.'s No. 1-E Morse, 330 ft. from S and W, W½ SE, Sec. 67, Blk. 25, H.&G.N. Sur. ..... T.D. 2,623 ft; 500 ft. oil in hole.

Parton & Holt's No. 2 Morse, 330 ft. from W, 350 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Drlg. 2,170 ft; gas at 2,065 ft. and 2,115 ft.

Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Standardizing.

Pulse-Shell Pet. Corp.'s No. 1 Culler, 330 ft. from S and E, Sec. 173, Blk. 3, I.&G.N. Sur. ..... Drlg. plug 2,562 ft.

Pulse-Shell's No. 1 Brown, 390 ft. from N, 350 ft. from E of NW, Sec. 138, Blk. 3, I.&G.N. Sur. ..... Rig.

Salisbury et al's No. 1 Davidson, 330 ft. from S and W, Sec. 37, Blk. B-2, H.&G.N. Sur. ..... T.D. 3,043 ft; pumping 40 bbls. day; to shoot.

Saunders et al's No. 2 Sullivan, 822 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, I.&G.N. Sur. ..... Will plug back to 3,375 ft. and shoot.

Tarber's No. 1 Saunders, 330 ft. N and W, Sec. 3, Blk. 1, B.B.&S.F. Sur. ..... Location.

Tedesco Oil Co.'s No. 3 Morse, 330 ft. from N and E of NE SW, Sec. 1, Blk. 26, H.&G.N. Sur. ..... T.D. 2,515 ft; T.P. 2,465 ft; hole bridged when shot.

The Texas Co.'s No. 4 Bull, 1,65 ft. from S, 330 ft. from W, Sec. 2, Blk. B-2, H.&G.N. Sur. ..... Drlg. 1,940 ft.

The Texas Co.'s No. 5-B McLarty & Lester, 990 ft. from N line, 950 ft from W line, Sec. 2, B.&B. Sur. ..... Drlg. 400 ft.

The Texas Co.'s No. 7 Bowers, 990 ft. from S line, 330 ft. from W line, Sec 89, Blk. B-2, H.&G.N. Sur. ..... T.D. 3,088 ft; testing.

The Texas Co.'s No. 10 Cook-Faulkner, 330 ft. from S, 1,605 ft. from W, Sec. 29, Blk. B-2, H.&G.N. Sur. ..... Skidded rig 50 ft. east.

The Texas Co.'s No. 10 Williams, 150 ft. from S, 1,650 ft. from W, Sec. 7, Blk. 1, A.C.H.&B. Sur. ..... Drlg. 2,330 ft.

Thorp et al's No. 1 Short, 330 ft. from N and E, Sec. 2, Blk. 1, H.&G.N. Sur. ..... Drlg. 900 ft.

Tripplehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ..... Rig up standard tools.

Travis et al's No. 2-B Webb, 990 ft. from S, 330 ft. from E of NW, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Rig.

Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ..... Shut down.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E, G. S. Hood Sur. ..... To deepen old well; T.D. 5,055 ft. rigging up.

HUTCHINSON COUNTY

Baso's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. ..... T.D. 3,080 ft.; estm. 5 or 10 bbls., may plug.

Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.

Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 31, Blk. 46, H.&T.C. Sur. ..... S.D. 450 ft.

Holmes & Newblock's No. 2 Moore-Langdon, 330 ft. from N and W, Sec. 135, Blk. 4, I.&G.N. Sur. ..... S.D. for repairs 2,947 ft.

Huber Pet. Co.'s No. 1-A Weatherly, 330 ft. from N and W, Sec. 36, Blk. Y, A.&B. Sur. ..... Cmtd. csg. 2,935 ft.

Huber Pet. Co.'s No. 2 Christian, 330 ft. from S and E, SW, Sec. 33, Blk. Y, A.&B. Sur. ..... Cellar.

Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 5, Blk. 1, B.&B. Sur. ..... Plugged back to 3,146 ft.; S.D.

Oates & Morrow's No. 2 Starnes, 1,400 ft. from S, 630 ft. from E, Sec. 24, Blk. M-23, T.C.R.R. Sur. ..... Rig.

Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ..... Shut down.

Rock Creek Oil Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ..... Rig.

Timms-Deatch's No. 4 Moore, 330 ft. N and W, Sec. 124, Blk. 4, I.&G.N. Sur. ..... Rig.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... S.D. 240 ft.

Interstate's No. 1 Nield, C NE, Sec. 18, Blk. 44, H.&T. C. Sur. ..... Rig up.

Pollard et al's No. 1 Hall, 330 ft. S and E, NE, Sec. 131, Blk. 3-T, T.&N.O. Sur. ..... Rig on ground

Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 360, Blk. 44, H.&T.C. Sur. ..... Drlg. 2,470 ft.

Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ..... Rig.

Sunray Oil Co.'s No. 2 Jones, 330 ft. N and W, W½ SW, Sec. 164, Blk. 2-T, T.&N.O. Sur. ..... Rig.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ..... S.D. 400 ft.

Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. S, G.C.&S.F. Sur. ..... U.R. 8-in. csg. 3,883 ft.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... Cmtd. cave 4,090 ft.

Travis et al's No. 1 Cunningham, 330 ft. S and W, Sec. 74, Blk. M-2, H.&G.N. Sur. ..... S.D. 2,690 ft.

WHEELER COUNTY

Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ..... Moving in tools to test; T.D. 2,760 ft.

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Two Drilling Records Made in California, With Prospect of Having World's Deepest Hole

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., July 16.—Two new drilling records were hung up in California during the past week and, unless something unforeseen develops, California will have the world's deepest hole within another few days. This potential record breaker is No. 1 Bradley of the Western Gulf Oil Co., a wildcat in the Santa Maria district of Santa Barbara County, which late this week was rotating ahead at 10,285 feet. This wildcat is within 300 feet of the existing record for depth established in the Penn Mex Fuel Corp.'s No. 35 Jardin in the Tuxpam district of Mexico, which was bottomed at 10,585 feet. The Western Gulf's Santa Maria wildcat was still in brown shale late this week and in addition to being the deepest hole ever drilled in California, it likewise has the distinction of penetrating the greatest thickness of brown shale encountered in any California well.

The Associated Oil Co. is believed to have broken the world's record for deep commercial production when No. 83 Lloyd in the Ventura Avenue Field was brought in flowing 5,500 bbls. of 28.7 gravity oil per day from 9,709 feet. This new well was finished in the 57 zone originally discovered in April, 1931, when No. 57 Lloyd was brought in flowing 4,850 bbls. per day. Only two wells have been completed in this deep zone and, since they were drilled for exploratory purposes, deep zone exploitation will not become a factor in this field for some time to come. No. 57 Lloyd was shut in immediately subsequent to completion and it is quite probable that the Associated will likewise suspend production activities on the latest record breaker, No. 83 Lloyd. There is very little drilling under way in the Ventura Avenue Field at the present time and, while a few new wells will be started from time to time, operators in this field are definitely committed to a restriction in drilling.

Kettleman Hills

The Kettleman North Dome Association successfully completed well No. 21-1 P in the Kettleman North Dome Field during the early part of the current week and this new well was brought in flowing 4,295 bbls. of exceptionally clean 34.9 gravity oil per day from 8,997 feet. This well had the distinction of being the deepest commercial producer in California for a few days, as it was 174 feet deeper than No. 57 Lloyd, the previous record holder. Upon the completion of No. 83 Lloyd at 9,709 feet the deep production record again reverted to the Associated Oil Co. at Ventura Field. The North American also chalked up a new completion in the Kettleman North Dome Field during the current week when No. 1 Elsinore in Section 36-21-17 was recompleted after being plugged back from 9,578 feet to 8,560 feet and recompleted flowing at the rate of 1,500 bbls. per day. The North American was unsuccessful in developing deep commercial production in either No. 1 Elsinore or No. 1 Blauvelt, both of which are located out on the north flank. The Kettleman North Dome Association is completing preparations to finish another new well in the Kettleman North Dome Field some time during the next fortnight and unless something unforeseen develops at the last minute, substantial production should be secured. Kenda's next projected completion is well No. 61-2 P, which is being conditioned preparatory to the landing of an oil string. In the Middle Dome the Petroleum Securities is still held up with mechanical trouble in No. 1 Burbank and an ultimate recovery is extremely doubtful. The Standard recemented its well No. 6-29 V, following a wet job, and an early test will be conducted. The outcome of work on this well is of paramount importance because if clean production is developed it will definitely prove up the Kettleman Middle Dome as a field of considerable importance. As the situation stands at the present time, some doubt exists as to whether the lower portion of the Temblor in the Middle Dome is wet as both the Standard and Petroleum Securities got water along with the production in the lower part of the hole. This might be a coincidence as it is not at all impossible that both wells had defective water shut-off jobs. Some are inclined to believe that the water which appeared in the Standard Oil Co.'s deep test in the Middle Dome is entering the oil sand through No. 1 Burbank of the Petroleum Securities. This probably accounts for the extended fishing job on No. 1 Burbank.

Midway-Sunset

The Standard Oil Co. is reconditioning No. 1 Mascot, a deep well in the Midway-Sunset Field of Kern County, preparatory to a resumption of drilling at 9,629 feet. Within the next few days the company should begin making new hole and operators will be in a position to determine definitely whether this well is a potential producer or somewhat overrated. Because of its importance, work on No. 1 Mascot will be watched with special interest. This well, the deepest to be drilled in the Midway-Sunset Field up to the present time, is of paramount importance because it may determine the status of this and other San Joaquin Valley fields during the course of the next few years. If No. 1 Mascot proves to be a dry hole it will consequently retard deep drilling, at least until conditions improve. If, on the other hand, commercial production is developed, it may stimulate deep drilling, provided of course that the existing price structure is maintained for crude oil. Because of its possible effect on future drilling, No. 1 Mascot of the Standard is one of the most important tests under way in the San Joaquin Valley at the present time.

Lost Hills-Belridge

There has been considerable discussion recently as to the probability of deep zone exploitation in the North Belridge Field of Kern County, but despite the general belief that operators in this area expect to drill several new deep holes there is no tangible evidence of such a procedure at the present time. The fact that the Belridge Oil Co. shut in its recent completion in the new deep zone tends to discount the probability of competitive drilling. Operators in this field have a gentlemen's agreement to observe curtailment regulations and refrain from unnecessary drilling. If the Belridge Oil Co. should open up its new well in the deep zone, operators would of course be obliged to immediately initiate offsetting work. It is highly probable that drilling operations in the North Belridge Field will be kept down to a minimum, especially because of the necessity of observing curtailment work and the desire of operators to refrain from all unnecessary drilling. Operators in the Lost Hills Field are likewise expected to refrain from unnecessary development with the result that no new wells are expected to be started in this area for several months.

Fruitvale

The Western Gulf Oil Co., discoverer of the Fruitvale Field of Kern County, successfully completed well No. 12 on the Kern County Land Co.'s Lease B, and this new producer showed an initial daily production of 460 bbls. of 21.9 gravity oil per day from 3,783 feet. The Gulf's No. 1 Bittle, finished at 3,980 feet, proved wet when swabbed in a few days ago, and evidence points strongly to the possibility that bottom water has been encountered. Several new wells are being started in this field and indications point to the probability that a number of new wells will be completed during the course of the next few months. Fruitvale crude, although of a somewhat inferior grade from a refining standpoint, has become a factor in both the fuel and refined oil markets with the result that it has had a tendency to weaken the general price structure. It is interesting to note that while the Mohawk Oil Co. has been refining Fruitvale crude, other companies have used this oil to meet fuel oil requirements. Because of its low gasoline content, the General Petroleum has been blending it with Kern River crude and disposing of it through the Santa Fe Railroad. This blend reduces the viscosity of the Kern River crude, which has a high B.tu. value and when properly blended results in a commercial fuel with a heating value of approximately 1,900 British thermal units.

Buttonwillow

The Milham Exploration Co., discoverer of the Buttonwillow Gas Field of Kern County, is pursuing an aggressive but conservative development program in the hope that a sufficient demand will be available to permit production activities during the coming winter. The Milham interests have a contract with the Pacific Gas & Electric Co. covering the disposal of natural gas during the next several years, but it remains to be seen whether the company will be able to produce and market dry gas in competition with oil gas. Due to decreased demand reflecting curtailment of manufacturing opgrations, it seems logical to assume that there will be a superabundance of oil gas to meet normal requirements during the coming winter months. Buttonwillow went on commercial production for a limited period during the past winter and may possibly make commercial deliveries again during the approaching period of higher gas consumption. Kettleman Hills and Ventura Avenue hold the key to gas production during the winter period as each area is capable of substantially increasing natural gas production. Because of their enormous potential gas production they will have a decided effect on the production of gas in exclusive gas fields. State officials have heretofore given preference to gas produced in oil fields and there is no reason to believe that this position will be changed.

Kettleman Hills operators won a further respite from threatened contempt proceedings for violation of the California gas conservation law when Superior Judge S. L. Strother continued the hearing for modifications of the injunction order until October 11. The Standard Oil Co. of California and the Ketlemen North Dome Association convinced the court that a temporary working agreement had reduced the waste of natural gas in the Kettleman North Dome Field to a daily average of approximately 13,000,000 feet. Because of this progress and in view of the fact that this waste only constitutes about 7 per cent of the total daily production, Judge Strother granted a continuance of three months. The association informed the court that it had a new compressor plant under construction which would further decrease the waste of natural gas. This new unit will be used to handle the low pressure gas which up to the present has been the subject of considerable controversy.

Long Beach

The Gold Seal Corp. successfully recompleted No. 1 Emblem in the Long

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	147,070	987,352
Gasoline	194,269	27,753	129,238	18,463	4,396,351	7,688,943
Kerosene	.....	.....	.....	.....	154,372	89,109
Foreign exports—						
Crude oil	124,670	17,724	284,409	40,630	4,614,853	3,759,091
Fuel oil	98,711	14,102	72,191	10,313	4,597,950	7,751,806
Diesel and gas oil	65,238	9,320	72,027	10,290	1,391,215	2,085,609
Gasoline	325,369	46,481	192,443	27,492	4,947,520	4,703,373
Kerosene	90,815	12,974	12,608	1,801	1,335,636	861,210
Lubricants	.....	.....	.....	.....	.....	18,975
Naphtha distillates	44,650	6,379	.....	.....	120,075	.....
Coastwise-domestic—						
Crude oil	323,098	46,157	271,595	38,942	7,289,303	11,098,350
Fuel oil	146,849	20,978	262,283	37,469	6,430,748	7,021,861
Diesel and gas oil	11,563	1,652	15,367	2,195	703,564	823,036
Gasoline	231,182	33,026	370,589	52,941	7,974,194	7,226,066
Kerosene	.....	.....	12,524	1,789	92,695	196,654
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	79,950	11,436	.....	.....	231,170	.....
Gasoline	.....	.....	61,955	8,851	430,185	405,469
Lubricants	.....	.....	.....	.....	15,824	21,990
Foreign exports—						
Crude oil	.....	.....	.....	.....	707,651	107,736
Fuel oil	60,450	8,636	.....	.....	582,109	720,901
Diesel and gas oil	.....	.....	.....	.....	352,107	294,708
Gasoline	5,451	779	160,013	22,859	1,911,725	2,256,797
Kerosene	2,325	332	54,670	7,810	548,558	440,002
Lubricants	.....	.....	.....	.....	24,934	.....
Naphtha distillates	.....	.....	.....	.....	.....	26,160
Coastwise-domestic—						
Fuel oil	22,130	3,161	.....	.....	1,463,445	2,207,444
Diesel and gas oil	.....	.....	.....	.....	238,094	195,112
Gasoline	90,660	12,943	111,160	15,880	1,822,915	1,751,111
Kerosene	.....	.....	.....	.....	65,756	147,990
Naphtha distillates	.....	.....	.....	.....	.....	49,780

Beach Field of Los Angeles Basin during the early part of the past week and this well was returned to production pumping 348 bbls. of 27.4 gravity oil per day from 5,873 feet. The Gold Seal Oil Corp.'s No. 1 Emblem was originally drilled by the Magna Oil Co. and finished several years ago as a 500-bbl. well. The Magna Oil Co. completed this well at 5,714 feet and it produced 75,000 bbls. of oil before it was killed because current production had declined to the point where economic production was impossible. No. 1 Emblem of the Gold Seal Oil Corp. is of particular interest because it is located on the smallest lease in California, which, in view of the many town lot drilling campaigns, is a rather unique distinction. The Emblem lease, which was originally designed for the location of a flag pole because of its unusual size and shape, is at the junction of three streets and measures 30'x40'x36'. In order to develop this property, the Magna Oil Co constructed a 12-foot retaining wall on one side of the lease and put the sump hole in the cellar beneath the floor of the rig. This project was drilled with electric equipment for obvious reasons. The Dabney-Johnston Oil Corp. also put a well on production in the Long Beach Field during the past week, although its project, No. 85 Signal, was only good for 82 bbls. of 85.1 gravity oil per day from 5,040 feet.

Seal Beach

The Standard Oil Co. finished a new well in the Seal Beach Field of Los Angeles Basin and increased its daily production 302 bbls. of 27.1 gravity oil per day when No. 25 San Gabriel was put on a production test. This new well, bottomed at 6,322 feet, but subsequently plugged back to 6,245 feet, was finished with a 6⅝-inch liner, including 314 feet of perforated and 6,193 feet of 3-inch tubing. With the completion of this well there is only one incompleted drilling project under way in the Seal Beach Field at the present time. This is No. 34 Bixby of the Continental Oil Co., now down 4,510 feet. There were no developments of special importance in the Playa Del Rey Field during the week, although there is a tendency toward reconditioning lower zone wells and the deepening of former heavy producers in the upper zone. This field, despite the reconditioning work under way, has ceased to be a factor of any considerable importance except in so far as it is capable of producing in excess of its established allotment under the curtailment program. It has ceased to be a field of major importance and will gradually become of less importance as time goes on due to normal decline. There are really only three good wells in the Playa Del Rey Field at the present time. These are No. 4 Del Rey and No. 1 Vidor of the Union Oil Co. and the Pacific Shore Oil Co.'s well No. 3.

The Pacific National Oil Co.'s well No. 5 in the Inglewood Field of Los Angeles Basin, taken over a few weeks ago by W. A. Kyle, is being prepared for a preliminary production test at 4,318 feet. This well, located around the edge of the Inglewood Field, looks fairly promising, although it is rather hazardous to venture an opinion one way or the other on an edge well in any field. Prospectors drilling wells around the edge of the Inglewood Field have not experienced any degree of success up to the present time and, while both Kyle's well No. 5 and No. 9 Brownmoor of the Baldwin Oil Co. might ultimately show an impressive initial daily production, this may not be any true criterion as to the ultimate recovery which, is in the final analysis, is the determining factor between profit and loss. The Shell Oil Co. plugged back No. 9 Rindge a week or so ago to 2,848 feet and returned it to production pumping 115 bbls. of 24.1 gravity oil per day. The plugging job on 'this well was undertaken primarily to remove any doubt as to whether it was producing from the first or second zones. By plugging the hole back to the upper horizon, the Shell removed any necessity for operators on adjoining acreage for drilling into the second zone. The action of the Shell in plugging off the bottom of this hole is generally attributed to the spudding in of No. 16 Rubel by the Pacific Western Oil Co. It has been generally rumored that the Rubel interests recently demanded the drilling of an offset by the Pacific Western Oil Co. on the assumption that the Shell had been producing the second zone for several years past. The Shell's action in plugging back definitely removes any doubt as to whether it is producing from the first or second zone. From personal knowledge, the writer can confirm the Shell's statement that they are unable to determine which zone is being produced. When this well was drilled into completion it came in rather prematurely and without affording the company an opportunity of correlating the productive formation. The situation was rather complicated due to the existence of a fault in close proximity to the location of this well and consequently some doubt has existed during the past several years as to the exact zone which was being produced. The Shell, in order to remove any doubt, plugged back the lower part of this hole and in doing so eliminated the necessity of any deep drilling on adjacent acreage. Drilling operations have just about been concluded in the Dominguez Field of Los Angeles Basin and work from now on should show a consistent decline. This drop in work may not be especially noticeable as there have only been three or four strings of tools in operation during the past month or so. The Union finished work on No. 16 Hellman and this well has been recompleted flowing 630 bbls. of 31.1 gravity oil per day from 5,213 feet. This just about cleans up the Union Oil Co.'s work in this field as No. 5 Carson and No. 18 Hellman have been temporarily placed on the inactive list. Both of these wells, however, may be recompleted at a later date as the suspension of work is more or less of an arbitrary nature.

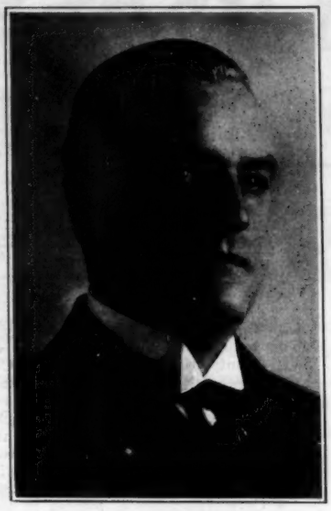
IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	9- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Co-operative Dev. Co., No. 1 Del Rey, Los Angeles Co.	26- 2-15	3,614	sd. sh. drilling
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20- 3-14	6,378	suspended
Barcus, W. L, No. 1 Watson, Los Angeles Co.	28- 4-13	rig	suspended
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	4,286	sd. sh. drilling
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	suspended
Kyle, W. A., No. 1 Inglewood, Los Angeles Co.	7- 2-14	4,318	prod. test
Pacific Western, No. 16 Inglewood, Los Angeles Co.	8- 2-14	2,269	sd. sh. drilling
El Dorado Oil Co., No. 1 Puente, Los Angeles Co.	30- 2-9	2,860	suspended
Jones, W. L., No. 1 Bell, Los Angeles Co.	31- 2-12	1,593	suspended
Weist Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	4,902	suspended
Blinn & Gray, No. 1 Montebello, Los Angeles Co.	6- 2-11	5,060	suspended
McNeil, A. W., No. 1 Montebello, Los Angeles Co.	7- 2-11	rig	suspended
Wardell & Menichini, No. 1 Montebello, Los Angeles Co.	7- 2-11	304	suspended
Yellowstone Oil Co., No. 1 Alhambra, Los Angeles Co.	24- 1-13	3,919	suspended
Caballero Estates, No. 1 Calabasas, Los Angeles Co.	23- 1-16	1,604	suspended
Marbie, Willard, No. 1 Chatsworth, Los Angeles Co.	6- 2-16	1,395	suspended
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	2,168	sd. sh. drilling
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	7,259	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	1,970	suspended
Abbot, Frank, No. 1 Capistrano, Orange Co.	6- 8-7	mtl.	building rig
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	3,693	sd. sh. drilling
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4-8	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25- 1-2	2,392	suspended
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	670	sd. sh. drilling
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	764	sd. sh. drilling
Borderland Oil Co., No. 2 Encinitas, San Diego Co.	29-16-4	2,677	suspended
South Bay Oil Co., No. 1 Border, San Diego Co.	31-18-2	1,243	suspended
Shannon, G. H., No. 1 Kearney, San Diego Co.	14-15-3	446	suspended

DR. VAN H. MANNING DIES IN NEW YORK

NEW YORK, July 18.—Dr. Van H. Manning, retired petroleum engineer, who directed the first researches to make helium practicable, died at his home here this week at the age of 70.

Doctor Manning was director of the Bureau of Mines under President Wilson, resigning in 1920 to become director of research for the American Petroleum Institute, from which position he retired to become a private consultant.



DR. VAN H. MANNING

Born at Horn Lake, Miss., Doctor Manning received his education at the University of Mississippi, graduating in 1881, and beginning his career as civil engineer wth the U. S. Geological Survey in 1886. In 1910 he joined the Bureau of Mines as assistant director, becoming director in 1915.

Foreseeing the entry of the United States into the World War, Doctor Manning early in 1917 started organizing a force of chemical engineers to work on war problems, and when war was formally declared, had a staff of 50 engineers engaged in this work. Under his direction, the first work was conducted on gas masks, flame throwers, signal lights, toxic gases, smoke screens, and incendiary bombs, as wells as experimental work on helium, which at the time cost $1,700 per cubic foot. During the course of his research in helium, he used 1,900 engineers and chemists on the experiments, expending $7,058,478 in the research, which ultimately brought the cost of helium down to 39 cents a cubic foot.

Doctor Manning received the honorary degree of Doctor of Engineering from the University of Pittsburgh in 1919. He was a Fellow of the American Association for the Advancement of Sciences, and member of the American Association of Petroleum Geologists, American Chemical Society, American Institute of Mining and Metallurgical Engineers, American Mining Congress, American Society for Testing Materials, the Coal Mining Institute of America and the Mining and Metallurgical Society of America, and was honorary member of the Petroleum Technologists of London.

CRAIG, COLO., GETS GAS

The Rocky Mountain Gas Co., subsidiary of the Ohio Oil Co., started selling gas to patrons at Craig, Colo., July 1. The supply is coming from one well on a recently proved structure about 3½ miles southwest of Craig.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	1,410	hd. sd. drilling
Barnsdall, No. 1 Los Alamos, Santa Barbara Co.	31- 8-33	5,280	br. sh. drilling
Western Gulf, No. 1 Santa Maria, Santa Barbara Co.	5- 9-33	10,285	deep record
Wilson, N. S., No. 1 Los Alamos, Santa Barbara Co.	2- 7-35	4,979	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	2,460	br. sh. drilling
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	5,510	redrilling
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	2,345	suspended
The Texas Company, No. 1 Carpinteria, Santa Barbara Co.	33- 4-25	4,071	sd. sh. drilling
Associated, No. 1 Rincon Creek, Ventura Co.	19- 4-24	2,080	suspended
Woodrow Pet., No. 1 Miguelito, Ventura Co.	4- 3-24	2,997	sd. sh. drilling
Miller, J. W., No. 1 Miguelito, Ventura Co.	23- 3-24	....	grading
Bell, H. H., No. 1 South Mountain, Ventura Co.	22- 3-21	2,484	suspended
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	....	material
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	1,020	sd. sh. drilling
Magu Synd., No. 1 Oxnard, Ventura Co.	17- 1-25	5,812	suspended
American Oil Co., No. 1 Conejo, Ventura Co.	33- 2-20	1,850	hd. sd. drilling
Wilshire Oil Co., No. 1-A Buttonwillow, Kern Co.	7-29-24	7,000	plug 2,800 ft.
Milham Expl. Co., No. 16 Buttonwillow, Kern Co.	7-28-23	2,540	prod. test
Milham Expl. Co., No. 17 Buttonwillow, Kern Co.	17-28-23	rig	rigging up
Purman, T. H., No. 1 McKittrick, Kern Co.	22-29-21	4,610	br. sh. drilling
Welport Oil Co., No. 8 McKittrick, Kern Co.	26-29-21	1,298	prod. test
Welport Oil Co., No. 2 McKittrick, Kern Co.	19-29-21	350	cleaning out
General Pet., No. 1 Belridge, Kern Co.	30-28-21	8,260	suspended
Wallace, K. C., No. 1 Belridge, Kern Co.	32-29-21	4,222	suspended
Rio Grande, No. 1 Shale Hills, Kern Co.	7-27-19	3,020	br. sh. drilling
Rio Cal Pet., No. 1 Shale Hills, Kern Co.	2-27-18	2,355	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,225	suspended
Hannah, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,500	hd. sd. drilling
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	1,060	sd. sh. drilling
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	2,710	sd. sh. drilling
Regina Oil Corp., No. 1 Mojave, Kern Co.	26-10-14	3,147	hd. sd. drilling
Meridian Oil Co., No. 1 Mojave, Kern Co.	11- 9-15	4,000	suspended
Harding, J. B., No. 1 Mojave, Kern Co.	5-10-19	1,030	redrilling
Ritchie, J. J., No. 1 Tejon, Kern Co.	33-11-19	6,025	suspended
Descanso Oil Co., No. 1 Tejon, Kern Co.	31-11-19	2,749	suspended
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Kent & McDonald, No. 1 Carrizo Plains, S. Luis Obispo Co.	3-32-22	2,693	redrilling
Emerich Oil Co., No. 1 Carrizo Plains, S. Luis Obispo Co.	22-32-22	1,615	cemented
Trav-El Oil Co., No. 1 Carrizo Plains, San Luis Obispo Co.	7-32-22	2,450	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Martin, J. D., No. 3 Edna, San Luis Obispo Co.	5-31-13	311	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Schilling, C., No. 1 Atascadero, San Luis Obispo Co.	1-29-12	1,650	suspended
Pacific Inland, Well No. 1, Monterey Co.	19-23-15	2,340	suspended
Brown, W. F., No. 1 Parkfield, Monterey Co.	15-23-14	1,051	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Woodward, Glen, No. 1 Dudley Ridge, Kings Co.	32-22-20	569	suspended
Scott Bros. Drlg. Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,843	suspended
Lacal Natural Gas Co., No. 1 Dudley Ridge, Kings Co.	32-22-20	341	recemented
Kettleman Natural Gas Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,100	suspended
Irma Investment Co., No. 2 Dudley Ridge, Kings Co.	7-23-20	1,224	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	rig	suspended
Eagle Oil Co., No. 2 Dudley Ridge, Kings Co.	15-23-20	1,141	sd. sh. drilling
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	5,694	suspended
Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co.	10-23-16	1,148	suspended
Mid-California Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	grade
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Guess, E. B., No. 3 Dudley Ridge, Kings Co.	12-23-22	1,840	testing
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	reaming
Sheldon & Gholson, No. 1 Portersville, Tulare Co.	34-22-27	683	sd. sh. drilling
Gravity Expl. Co., No. 1 Alpaugh, Tulare Co.	11-24-23	2,207	cleaning out
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8-3	3,034	sd. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	3- 2-10	4,775	sd. sh. drilling
Hilderbrandt, R., No. 1 Crows Landing, Stanislaus Co.	36- 6-7	1,130	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,594	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo County	23-12-3	3,045	suspended
Easton & Monell, No. 1 Colma, San Mateo Co.	25- 3-6	3,130	suspended

Two Wells Completed in Hobbs Pool, N. Mex.; Good Progress in Colorado Deep Test

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., July 18.—The Magnolia Petroleum Co. has spudded a second well in the Piceance Creek structure of Rio Blanco County, Colorado. Good progress was made in the California Co.'s deep test in the Rangley Field.

One completion was reported in the Osage Field in Wyoming, one near completion and three new locations staked.

In the Hobbs Pool, New Mexico, Midwest Refining Co. completed two wells which are awaiting official proration tests.

In the Dry Creek Field, Montana, the Ohio Oil Co. encountered water in the Lakota in No. 8 Caldwell and is coring for the Sundance. There were no completions in the Whitlash Field but two wells are drilling in.

COLORADO

Weld County

The effect that the production of one well has on neighboring wells was again emphasized in the Greasewood Field of Weld County during the past week when tubing was pulled on the Ida Johnson well of the Platte Valley Petroleum Co. Tubing was pulled in the Ida Johnson test, allowing the well to flow open through the casing. Before tubing was removed, the well was producing 91½ bbls. of oil per day, while its offset, No. 1 Patterson of the Platte Valley, was producing 48 bbls. per day. The day after tubing had been pulled the production of the Johnson well increased to 156 bbls. per day, flowing open through the casing, while the production of the Patterson well dropped to 42 bbls. While this drop is not great in volume, it is certainly great in proportion to the amount of oil the Patterson well is now producing.

The Ohio Oil Co. has been delayed in the drilling of No. 1 Butters in the Greasewood Field, SW cor., Section 7-6n-60w, by crooked hole. When an acid bottle was run at a total depth of 3,877 feet, it was found the well was off vertical 18 degrees. As a consequence, the hole was cemented back with 150 sacks of cement to 3,470 feet, or to within 10 feet of the bottom of the 9-inch casing. The test is shut down waiting for cement to set. While the Ohio was being delayed as recorded above, the joint test of Manning & Terry, Platte Valley Petroleum Co. and others, C NE SE, Section 13-6n-61w, made good progress. At this writing, the well is drilling at 6,008 feet.

Slight delay was had in the wildcat test of the Tulsa-Fort Morgan Oil Co.'s No. 1 Anthes, NE cor. NE, Section 24-8n-59w, in the New Raymer district of Weld County, when it was necessary to cement cave from 2,011 feet to the bottom of the hole at 2,250 feet. The well is temporarily inactive waiting for cement to set.

In the Fort Lupton district of Weld County, Ritter Oil Co. is drilling at 450 feet in its No. 2 Cronin, SW SW, Section 24-1n-66w.

Washington County

Having just recently resumed under reorganization, the Middlemist Oil Co. has had considerable difficulty with cave in No. 1 Middlemist, SW SE, Section 14-14s-56w, which had been standing idle over a considerable period at a total depth of 1,510 feet. After operations had been resumed the first part of this month, new hole had been made to around 1,600 feet. However, the hole was caving so badly it was finally made necessary to cement off the cave from 1,475-1,552 feet. The well is now shut down waiting for this cement to set, 20-inch conductor was set in this well at 100 feet, 1,000 feet of 15½-inch casing was run, and the 12½-inch was set at 1,475 feet.

Routt County

In its program of deepening old producing wells in the Tow Creek Field of Routt County, the Texas Production Co. has unsuccessfully deepened one well and is now deepening a second old producer. This company's No. 7 Quaintance-Hocking, NE SE, Section 18-6n-86w, was carried to a total depth of 3,640 feet and as results have been negative, casing will be pulled and the well will be abandoned. No. 4 Carstarphen-Irwin, located in the NE NW NW, Section 5-6n-86w, is bottomed at 3,485 feet and is cleaning out approximately 10 feet off bottom.

Rio Blanco County

The Magnolia Petroleum Co. has spudded its second well on the Piceance Creek structure of Rio Blanco County. This well is No. 1 Gladys Titley, NW NW SW, Section 15-2s-96w. The well was spudded on July 12 and will be ready to set and cement surface casing momentarily.

Good progress was made during the past week in the California Co.'s deep test in the Rangely Field of Rio Blanco County, No. 1 Raven, NW SE, Section 30-2n-102w. At this writing the well is drilling at 5,653 feet.

NEW MEXICO

Lea County

In the Eunice area of Lea County, the Tidal Oil Co. is rigged up ready to spud its No. 1 State, SW cor. NE, Section 8-21s-36e.

The Texas Production Co. is about ready to resume operations after installing rotary at 1,371 feet in its No. 3-A State, in the center of Lot 2, Section 2-21s-33e, in the Lea area of Lea County.

In the Hobbs Field of Lea County, the Midwest Refining Co. has two wells completed during the past week which are waiting official proration tests. These are No. 26 State, NE, Section 9-19s-38e, and No. 11 Byers, C NE NE, Section 4-19s-38e. No. 26 State drilled the top of the anhydrite at 1,550 feet, topped the salt at 1,665 feet and the top of the brown lime at 2,860 feet, 8⅝-inch casing was cemented with 150 sacks of cement at 4,050 feet, and the well is bottomed at a completion depth of 4,190 feet. No. 11 Byers was completed at a total depth of 4,174 feet, having topped the anhydrite at 1,550 feet and the salt at 1,678 feet. The base of the salt was found at 2,586 feet, and the top of the brown lime was encountered at 2,790 feet. The first gas was developed between 2,814 feet and 2,820 feet. At 3,707 feet this well had between 7,000,000 and 10,000,000 feet of gas per day. The Midwest Refining Co. has two drilling wells in the Hobbs Field, No. 29 Turner, NW, Section 34-18s-38e, is drilling at 3,520 feet in anhydrite and lime, and No. 11 Terry, C NE SE, Section 9-19s-38e, is drilling at 196 feet in red beds.

Gypsy Oil Co. is rigging up No. 2 Graham, NE cor., Section 2-18s-37e, and the Skelly Oil Co.'s test, to be drilled in the CWL SE NW, Section 34-18s-38e, is also rigging up. The latest active operation in the Hobbs Field is the Empire Gas & Fuel Co.'s No. 4 Hardin, NW cor., Section 19-18s-38e, which is spudding.

During June, pipe line runs from the Hobbs Field totaled 878,110 bbls., bringing the total pipe line runs since proration has been in effect to 23,982,558 bbls.

San Juan County

The status of the three Continental Oil Co. wells in the Rattlesnake Field of San Juan County remains unchanged. This company's No. 29 Rattlesnake, in Section 12-29n-19w, has set 5⅜-inch casing at a total depth of 809 feet, where it is shut down waiting for cement to set. In No. 17 Rattlesnake, SW cor. SE NE, Section 2-29n-19w, 4¾-inch casing is still being pulled and manipulated. The well is bottomed at a total depth of 6,734 feet. No. 24 Rattlesnake, in the SW cor. NW, Section 1-29n-19w, is cleaning out and swabbing at 6,500 feet. The total depth of the well is 7,370 feet.

WYOMING

Weston County

The Osage Field of Weston County has one well completed; one well is a near completion and three new locations were released. The completed well is the Yellowstone Oil Co.'s No. 3, NE NW, Section 23-46n-64w, which had an initial production of 280 bbls. in the Newcastle sand at 1,853-1,978 feet. The well has since settled to 50 bbls. Karl Cundy's No. 3 well, NW NE NE, Section 31-46n-63w, bridged after a 30-quart shot in sand at 1,398-1,428 feet and is now being cleaned out for a production test. The well had an excellent show of oil before the shot and is expected to make a good producer. Yellowstone Oil Co.'s No. 2, NW NW NE, Section 23-46n-64w, is a location. Homestake Oil Co.'s No. 3, SE NE, Section 15-46n-64w, is moving in material. Peckham and others' No. 1, SE NW NW, Section 19-46n-64w, is a location. Central West Oil Co.'s No. 1, NE NE SW, Section 15-46n-64w, lost hole at 850 feet and is skidding rig. Chadron-Osage Oil Co.'s No. 17, SW NW SW, Section 14-46n-64w, is drilling at 2,000 feet. Eight and one-quarter-inch casing has been landed at 1,180 feet in No. 3 of the Federal Oil Co., SE NE SE, Section 15-46n-64w. General Oil Co.'s No. 1, SW NW, Section 15-46n-64w, is drilling at 1,000 feet, and Riggs Oil Co.'s No. 2, SE NE, Section 16-46n-64w, is drilling at 1,400 feet. Paymac Oil Corp.'s No. 1 Toyne, SE NW NE, Section 3-46n-64w, is spudding at 300 feet, and Wyo-Dak Oil Co.'s No. 1, SE SW NE, Section 15-46n-64w, is spudding. Lambie Oil Co.'s No. 8 Julius Bock, SW SW NW, Section 14-46n-64w, is drilling at 1,650 feet.

Test of the Fiddler Creek structure, being made by Julius Peters and others on the Witzel farm, SE SE NW, Section 30-46n-64w, has reached a depth of 4,385 feet.

Natrona County

Jarvis & McDonald have a failure in their test of the Spindletop Dome, SE SE, Section 31-30n-81w, which was drilled to 1,321 feet. The objective Sundance sand was not logged and it is thought the well may have been drilled into a fault. The hole has been filled with mud and operations suspended for the present.

Lakota Oil & Gas Co., on the North Casper Creek structure, has reached 800 feet in its No. 6 well, Section 6-36n-82w. This well had a good show of gas at 480 feet. Rig for No. 5, NW NE, Section 31-37n-82w, has been completed.

Midway Syndicate's No. 2 well on Midway Dome, C SW SE, Section 14-35n-79w, was dry in the second Wall Creek sand logged from 5,232-5,370 feet and is now drilling at 5,600 feet to test the Muddy sand, expected at around 6,000 feet.

Converse County

Ohio Oil Co.'s No. 25 Kinney, SE SW SE, Section 4-33n-76w, Lakota sand test of the Big Muddy Field, is straightening crooked hole after cementing back to 3,500 feet from 4,148 feet. Continental Oil Co.'s No. 1 Glenrock Sheep, SW SE SE, Section 4-33n-76w, east offset to No. 25 Kinney, has reached 4,323 feet and is standardizing before drilling the Lakota sand.

Niobrara County

Continental Oil Co. has cemented 4¾-inch liner at 3,235 feet in its No. 4 Rohloff, NW SW SW, Section 33-36n-65w, in the Lance Creek Field. This is an old well which has been deepened to the Sundance sand from 2,960 feet. It is rated as a completion and gas production is now being tested.

Fremont County

Ward Oil & Gas Co.'s second test of the Dutton Basin, NE Section 28-34n-90w, has reached 3,110 feet and is said to be bottomed in Carlile shale. The objective is the Dakota sand. The Yellowstone Oil Co.'s No. 1 Gabus, SW cor., Section 14-38n-94w, near Shoshoni, has reached a depth of 2,100 feet. The Texas Company's No. 2 State-Ridgway, SE SW SW, Section 36-34n-95w, on the Alkali Butte structure, is shut down to repair boilers at 832 feet.

Big Horn County

Torchlight Oil Corp. is preparing to resume operations at its deep test on the Torchlight Dome, Lot 8, Section 30-51n-92w. This well has been standing at 3,541 feet for several years bottomed in the base of the Embar.

Work in the Byron-Garland district was of a routine nature the past week. The Ohio Oil Co. is reported to be doing some repair work at its producing wells, and the test of the Lovell Dome Associated, NE SE, Section 9-55n-96w, is ready to resume after cementing 15½-inch casing at 605 feet. The test of W. O. Taylor on Lot 6, Section 25-56n-97w, is rigged up ready to spud.

Park County

The Henderson Producing Co.'s No. 10, SW NE NE, Section 31-58n-99w, in the faulted area at the south end of the Elk Basin Field, is straightening crooked hole at 110 feet.

Sublet County

The California Petroleum Corp.'s No. 7H-2, on NW cor., Lot 10, Section 3-26n-113w, in the La Barge Field, is fishing for tools at 555 feet. Twelve and one-half-inch casing was landed at 268 feet. Its No. 6-L, SE SE SW, Section 34-27n-113w, reported as a completion at 610 feet, is pumping 40 bbls. daily. It is a better well than first reported.

Sweetwater County

The Wyoming-California Petroleum Co.'s test on Middle Baxter Basin, CWL SE SE, Section 23-17n-104w, is reported drilling below 3,600 feet.

Carbon County

The Lost Soldier Producing Co.'s No. 1 Hughes Royalty, NE NE, Section 25-26n-88w, on Mahoney Dome, is attempting to sidetrack junk cemented in the hole at 3,765 feet. If this can be accomplished

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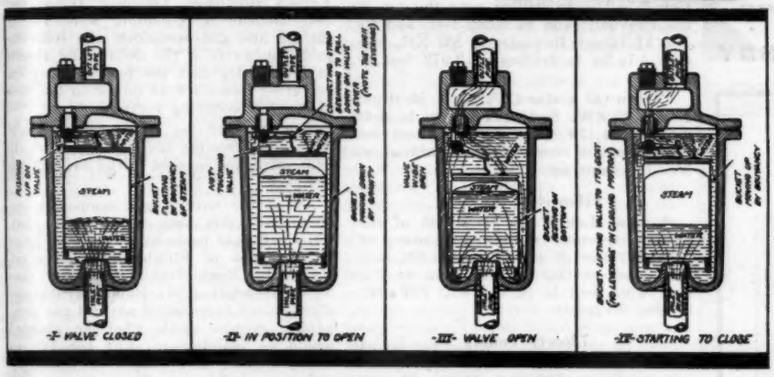

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BARGAINS ON PAGE 79

it is the purpose of the operators to test the entire Sundance formation.

The Midwest Refining Co.'s interesting test on the Elk Mountain structure, No. 27 Union Pacific, NW SE SE, Section 22-20n-81w, is standing cemented at 4,380 feet and is expected to start drilling plug at once. Cores taken at the above depth showed considerable oil saturation.

MONTANA

Carbon County

The Ohio Oil Co.'s No. 8 Caldwell, SE SW NE, Section 17-7s-21e, in the Dry Creek Field, after encountering water in the Lakota sand at 5,703 feet, is coring ahead for the Sundance sand at 5,947 feet. This well is an offset to the Carbon Oil & Gas Co.'s No. 1 Armstrong, SW NW, Section 7-7s-22e, which came in with an initial production of 1,934 bbls. in 32 hours from the Lakota sand, on January 30, 1931, and after producing for several months turned to water. Either the eastern limits of the field have been outlined or a faulted condition is responsible for the failure of No. 8 Caldwell in the Lakota sand.

The Ohio Oil Co. has two other active operations in the Dry Creek Field at this time. Its No. 7 Robinson, C SE SE, Section 3-7s-21e, is drilling near the top of the Greybull sand at 5,562 feet, and its No. 11 Henry Bowman, C SE NE, Section 4-7s-2e, is drilling at 3,972 feet in shale.

Carbon Oil & Gas Co.'s No. 1 McMinn, NW SW SW, Section 7-7s-22e, is shut down at 4,479 feet for orders and the completion of cementing operations at No. 1 Armstrong.

Yellowstone County

Spokane Laurel Oil Co.'s test of the Laurel structure reports a showing of 2,000,000 feet of gas below the 8¼-inch casing set at 690 feet, in sand at 725 feet. This well is in the SW SW SE, Section 30-2s-24e.

Liberty County

There have been no new completions reported in the Whitlash Field, although two wells are drilling in. R. C. White's No. 1 Hicks, C NE NE, Section 26-37n-4e, has drilled the first sand below 1,600 feet, and H. L. Postlewaite's No. 1 Hicks, C SW NE, Section 26-37n-4e, has reached 1,860 feet and probably was through the second sand. A. E. Crumley's No. 1 Strode, C NW NE, Section 35-37n-4e, had a show of oil around 1,400 feet and was drilling at 2,500 feet. This well was a failure in the upper sands.

Peoples Oil & Gas Co.'s No. 1 First National Bank, C SE NW, Section 17-36n-6e, in the Bear's Den Field, apparently has successfully sidetracked 8¼-inch casing lost in the hole between 1,300 and 2,000 feet. According to the latest field report this well is now drilling below 2,100 feet.

Glacier County

R. C. Tarrant's new well on the Hagland farm, NW NW SW, Section 13-34n-5w, in the Cut Bank Field, when swabbed this week, made 115 bbls. of 38.7 degree gravity oil in five hours from sand at 2,848-94 feet, without reducing the fluid level. It is believed that the Tarrant well has opened a new and important oil field. The Texas Company's No. 1 Peterson, SE NE SE, Section 22-36n-5w, is drilling at 865 feet and its No. 1 International Land, over the line in Toole County, C S half SW, Section 6-36n-4w, has reached 2,500 feet. These are the only active wells in the Cut Bank Field, but it is expected a number of new wells will be started as a result of the Tarrant discovery. Tarrant has a new location on the NW cor., Section 12-34n-6w, and is expected to start building a rig next week.

Milk River Petroleum Co.'s No. 1 Blackfeet, SW NE NE, Section 28-28n-12w, which was drilled to 2,939 feet by the Fulton Petroleum Co., has installed rotary equipment, is reported making hole below 3,000 feet.

Teton County

The California Co.'s No. 1 Sullivan, NW NE NW, Section 34-27n-7w, in the district south of Valier, has reached a depth of 3,385 feet.

Toole County

The Askalta Oil Co., Ltd., has an active operation in the Buckley Border Field at this time in its No. 6 Farbo, NE SW NE, Section 2-37n-4w, which has reached a depth of 725 feet. This is an inside location.

Cascade County

Test of Charles Merz, on Black Horse Lake, No. 1 Sheffels, CWL SE NW, Section 4-21n-4e, has reached a depth of 1,720 feet.

Test of Buscher & Cassidy, No. 1 Johnson, NE NE SE, Section 19-22n-3e, at Benton Lake, which has been standing since the first of February at 1,390 feet, waiting the completion of the Merz test on Black Horse Lake, has resumed operations and is now drilling below 1,465 feet.

PENNSYLVANIA TAX ON GROSS GAS RECEIPTS

WELLSBORO, Pa., July 16.—Dr. J. French Robinson, Thurman H. Myers, and Thomas A. Crichton, were among the oil and gas operators who told the joint committee of the Senate and House at Harrisburg that the proposed tax on gas gross receipts were unjust in the face of steadily declining revenues.

The proposed tax would impose an 8 mills gross receipts tax on all individuals and companies engaged in the natural gas business.

All of the natural gas companies operating in this area were represented. Chief talk was made by attorney Charles K. Robinson of Pittsburgh, who is retained by Pennsylvania Naturday Gas Men's Association. Mr. Robinson cited declines in net revenues of natural gas companies, coupled with what he claimed would be inability to shift the tax to the consumer, as a reason for what he called its unfairness. Natural gas companies are not utility companies, he said, they are mining operations and a tax on natural gas would be a tax on natural resources.

NATURAL GAS FOR SIOUX CITY

Sioux City Gas & Electric Co., Sioux City, Iowa, has laid a natural gas main through a portion of Sioux City. The new line will supply natural gas to the present gas plant where it will be used for enriching blue gas in place of oil in the carburetted water gas process. The new gas main has its source of supply in Northern Gas & Pipe Line Co.'s 20-inch line. The Sioux City line varies from 12 to 16 inches, is of cast iron pipe and will be operated at 30-40 pounds pressure, according to C. T. Williams, assistant general manager.

LEGAL

Notice of sale by trustee. I will offer for sale, at my office, 213½ W. Ferguson Street, Tyler, Texas, at 2:00 P. M., July 27th, 1932, free, and clear of all liens and encumbrances, the following property: ¾ leasehold interest in the R. G. McIntyre Drilling Company 15 acre tract on the M. L. Thompson, Cordova Survey, Rusk County, Texas. Lease has one producing well, battery (four 1,000 barrel tanks and one 250 barrel flow-tank), one separator, flow lines. Have pipe line connection. ¾ leasehold interest in the M. L. Thompson, Cordova Survey, Rusk County, Texas, 1-24/100 acres. Derrick erected only. Sale to be made for cash, subject to approval or rejection of any or all bids by the Referee. Edw. F. Perry, Trustee, R. G. McIntyre Drilling Company, Bankrupt, Tyler, Texas.

LEGAL

Notice of trustee's sale. I will receive bids up to the 27th day of July, A. D. 1932, at 10 o'clock A. M., for the sale of one 10-acre oil, gas and mining lease, known as the Berry-Lewis & Co. Deason tract in the M. J. Pru Survey, Rusk County, Texas, which has one producing well, and one uncompleted well, 1,450 feet surface-casing set and derrick up. Producing well with derrick, separator, battery tanks (four 1,000 and one 500 barrel tank), flow line and pipe line connections. Sale to be made for cash, and subject to balance due on oil payments, but free of any other liens, and subject to approval or rejection of any and all bids by the Referee. The Trustee has received a bid of $15,000.00 in cash. Edw. F. Perry, Trustee, Berry-Lewis & Co., bankrupt, Tyler, Texas.

Texas Commission to Make Own Survey Naming Engineers to Get Data

By NEIL WILLIAMS

HOUSTON, Tex., July 18.—After a two-day hearing by the Railroad Commission at Austin, July 11 and 12, at which time testimony on conditions in the Gulf Coast and Southwest Texas areas was presented, the meeting was adjourned, and without the Yates Field having been discussed. The Van Field was also to have had a hearing, but operators and royalty owners were granted more time to work up further data.

The commission listened to testimony, engineers and production men citing statistics and conditions, but apparently the evidence presented was considered too indefinite, for the commission announced it would collect its own data on the producing fields, appointing engineers to obtain figures upon which some future proration plan for the whole State might be based.

The commission tendered positions to J. S. Hudnall, consulting geologist and petroleum engineer, partner in the firm of Hudnall & Pirtle of Tyler, and E. V. Foran, consulting engineer of Fort Worth. If they accept they will begin their investigations at once, and will be expected to finish by the middle of August or the first of September. The Gulf Coast and Southwest Texas areas are to be the first to come under investigation; the Van Field, Yates Field, and other fields following in line of importance.

Suggestion was made last year to obtain services of a petroleum engineer, oil attorney and competent oil man who knew Texas production practices, in compiling statistics on the fields in the State, and in studying problems connected with proration and conservation, but the suggestion never bore fruit.

Commissioner Ernest O. Thompson presided at the session which was called after an East Texas delegation had demanded a hearing on proration of East Texas and other areas of the State, asking that the same form of measurement be applied to other fields as to East Texas, in reality seeking further curtailment in several other areas.

The commission's intentions, stated by Mr. Thompson, were to determine if any waste existed in any of the areas, and if so, to take action to curtail this waste. Many operators have indorsed the commission's decision to collect its own data.

At the hearing, J. S. Hudnall, geologist, succeeded in reading into the record charts purporting to show the inequities of production among the State's various fields, as related to East Texas. This testimony was vigorously protested, on the ground that it was without authority and based primarily on assumptions. However, Mr. Thompson permitted the charts to become part of the record, but said the commission reserved the privilege of determining what weight should be given them.

Hudnall's charts shows the per well allowables in the various fields as follows: Rabbs Ridge, 800 bbls., Barbers Hill, 145 bbls.; Van Field, 145 bbls.; Pettus, 116 bbls.; Government Wells, 110 bbls.; Darst Creek, 67 bbls.; East Texas, 50 bbls., and Spindletop, 30 bbls.

The per acre allowables of various fields, according to Mr. Hudnall, are as follows: Barbers Hill, 100 bbls.; Government Wells, 14 bbls.; Rabbs Ridge, 10 bbls.; Darst Creek, 10 bbls.; Spindletop, 10 bbls.; Van Field, 8.6 bbls.; Pettus, 7 bbls., and East Texas, 2.5 bbls.

The allowables to potential were claimed to be: Spindletop, 100 per cent; Pettus, 75 per cent; Government Wells, 60 per cent; Barbers Hill, 40 per cent; Rabbs Ridge, 40 per cent; Darst Creek, 15 per cent, Van Field, 2.6 per cent, and East Texas, 0.8 per cent.

The allowable in percentage to oil reserves in the various fields were shown as: Government Wells, 66 per cent; Darst Creek, 37 per cent; Spindletop, 23 per cent; Pettus, 17 per cent; Barbers Hill, 13 per cent; Van, 7.2 per cent; East Texas, 6.6 per cent, and Rabbs Ridge, 4 per cent.

These figures will no doubt be checked when the experts make further study. The figures presented show the allowable ratio to potential as being the lowest in East Texas, 0.8 per cent, and Spindletop the highest, 100 per cent. The per well allowable is highest at Rabbs Ridge, 800 bbls. a day, while East Texas was next to the lowest, with 50 bbls. per day. The latest commission order curtailed it to 46 bbls. per day, effective July 16. There are now over 6,800 wells in the East Texas fields.

The last production report, covering the seven-day period ending July 15 shows the field produced a daily average of 337,420 bbls., and distribution was only 315,132 bbls. Production and distribution figures, however, seldom can be balanced in this field, where it is reported many operators continue to produce without regard of the daily allowable set by the Railroad Commission. In carrying oil through its line to a local refinery, the pipe line showed one set of figures, whereas the receipts as recorded and filed by the receiving refinery were far in excess of the pipe line company's figures, and such has been the case in many instances in the field, some of the operators continuing to sell overage below the market price of 98 cents in order to dispose of more oil from their leases, and enlarge their gross revenue.

It is this situation which is maintaining production above the daily allowable of 325,000 bbls. in the district, is hurting the market and preventing the price being raised, as the purchasing companies are not content with paying 98 cents while competitors and others get oil for 50 cents per barrel or less.

One operator who has a large refinery in the district, but which has not been operating, is selling his oil for 98 cents per barrel, while at the same time he is taking excess or overage oil for 50 cents which he will run to his refinery. This prevents a healthy condition in the field, and one which the courts, Railroad Commission, or any association can remedy. Three organizations are to make a concerted effort to check excess production and runs, and stop such practices.

S. O. OF VENEZUELA TO DRILL

NEW YORK, July 18.—Standard Oil Co. of Venezuela (Standard Oil Co. of New Jersey) has entered into an agreement with North Venezuelan Petroleum Co., Ltd., for development of a large part of the latter company's concession, consisting of some 300,000 acres in the El Gueque area. Standard of Venezuela will drill a minimum of 20,000 feet on four separate divisions, with the right to develop the area for the joint account of itself and North Venezuelan.

B.O.D. INCREASES CAPITAL

NEW YORK, July 18.—British Oil Development Co., Ltd., will increase its capital from £82,500 to £1,000,000, according to London. British interests control 51 per cent of the B.O.D. Co., with Azienda Generale Italiana Petroli holding 25 per cent, and French and German groups 12 per cent each. B.O.D. Co. recently closed with the Iraq government for a large tract of oil land in that country, and is considering the construction of a pipe line to the Mediterranean.

WILDCATTING IN HOLLAND

NEW YORK, June 18.—The Netherlands government has issued a decree provisionally limiting drilling rights in Holland to permit Bataafsche Petroleum Maat., a Royal Dutch-Shell subsidiary, to continue its exploratory drilling. Recent geological surveys, it was stated, have established the presence of petroleum deposits in certain sections of the northern part of Holland.

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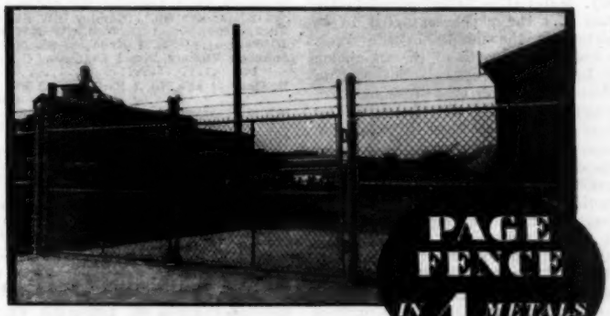

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CHAIN LINK OR ORNAMENTAL WROUGHT IRON

Thirty-One New Operations in Kansas Indicate Faith of Oil Men in the Future of State

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

Thirty-one new operations in Kansas were announced in the past week. They are scattered through Butler, Cowley, Douglass, Ellsworth, Greenwood, Harvey, Rush, Sedgwick, McPherson and Sumner Counties, and comprise the largest number of prospective wells reported in Kansas in any one week in a long time. Kansas oil men are having a difficult time finding and retaining crude oil markets in some of the more recently discovered oil areas, but their faith in the State as a producer of oil is so keen that they continue to drill in the hope of better conditions in the industry.

The State's production also shows an increase of approximately 1,700 bbls. daily over the previous week. The daily average production for the seven days was approximately 97,000 bbls.

Another attempt will be made to extend production along the Barton-Ellsworth Arch area in Ellsworth County, to the east. Barnsdall Oil Co. and Burley Brothers have made a location for No. 1 Union Pacific, NW cor. SW, Section 7-14-7w. The test is located on a large block of leases assembled in 1926 on the Barton-Ellsworth Arch before any production had been found in Ellsworth County. Companies owning adjoining blocks include Sinclair Prairie Oil Co., Mid-Kansas Oil & Gas Co. and Phillips Petroleum Co.

A wildcat test is being started on a block of 6,000 acres by Benedum & Trees and A. M. Austin. It is No. 1 Foy, SW cor. SE SE, Section 14-34-1w, Sumner County. Material is being moved to the location and the rig is expected to be completed by the middle of the week. This test is just north of the Oklahoma State line, and about 12 miles east of the State Line Pool, opened about three years ago by the Gypsy Oil Co. and is also north of the Braman Field in Oklahoma.

The wildcat gas well in Kingman County was drilling deeper after mudding off the gas. Skelly Oil Co.'s No. 1 Leisman, in Section 20-27-10w, mudded off what was estimated to be 30,000,000 feet of gas a day, 1,400 pounds rock pressure, found in the Viola lime at 3,920-80 feet. It was drilling deeper at 4,020 feet on the last report. The gas was mudded off after a wait of several days and drilling has been resumed to determine whether oil in paying quantities could be found at a greater depth.

Since the finding of gas in No 1 Leisman, leasing activity has increased in the county. This well is also making around 200 bbls. of oil from the Lansing formation, and is being produced between the 6 and 8-inch casing. Considerable acreage has been leased surrounding the 21,000-acre block owned by the Skelly Oil Co.

River Bed a Good Prospect

Another interesting wildcat well was added to Barton County, during the week, enhancing the value of the river bed in that area. The Midwest Refining Co.'s No. 7 Scheuffler, C SW SE, Section 9-20-11w, made 265 bbls. of oil in 10 hours on a swabbing test from the Silicious lime at 3,304-10 feet. It is expected the well will be drilled deeper. It is located about 3 miles west of the Isern Pool, in the same county, and is situated in the bend south of the Arkansas River, the stream circling to the north and east of the well.

Added interest in the well was due to the fact that the U. S. Circuit Court recently gave a decision upholding the rights of companies to drill in the Arkansas River bed. The decision holds that the State of Kansas owns the river bed and sustains the claim that it is a navigable stream.

The Derby Oil Co. owns the oil and gas rights on the Arkansas River bed entirely across Barton County. The lease on the river bed was purchased from the State a few months ago.

During the last three years developments along the Arkansas River in Rice and Barton Counties have been as follows: The Schurr Pool, at Raymond in Rice County, was opened in 1929. Wells in this pool are located on the north side of the river. In 1931, oil was found about 4 miles up the river in Barton County, in the Isern Pool. Now the recent finding of oil by the Midwest Refining Co. 3 miles farther up the stream has added to the value of the Derby Oil Co.'s lease.

In the past, several oil pools have been found in the bed of the Arkansas River in northern Oklahoma and southern Kansas. The Churchill Pool, at Oxford, Kans., is a rived bed pool.

Heiken Block Further Proved

Two wildcat tests in the Central West area that were showing oil last week, have been temporarily shut in, awaiting a pipe line connection. These wells were drilled on a 27,000-acre block of leases on a geological high along the Barton-Ellsworth arch, by Slick, Pryor and Lockhart, Darby Petroleum Corp. and others. One of the wells is No. 1 Breford, in Section 7-17-10w, Ellsworth County, which is estimated at 800 bbls. a day from the Kansas City lime at 3,140-50 feet. The other is No. 1 Orth, in Section 27-18-10w, Rice County, which is estimated at 65 bbls. an hour from the Siliceous lime. This well flowed wild when oil was first found, and was later shut in.

The discovery well, drilled on this same block, was the same operators' No. 1 in Section 25-17-10w, which was completed in August, 1930, and was estimated at 2,000 bbls. a day from the Siliceous lime at 3,221-43 feet.

The property is known as the Heiken block and the discovery well was shut in because of no pipe line outlet. The lack of a market for the crude retarded the development. Some express the opinion that independent interests may erect a refinery of substantial proportions in this section of the State to handle the output of wells recently completed.

No. 1 Orth, in Section 27-18-10w, Rice County, started flowing when the 6-inch casing was lifted to underream. The oil was found in the Siliceous lime at 3,236-43 feet. The tools were still hanging in the hole when the well began flowing. The other well is located about 11 miles northwest of No. 1 Orth, and is in Section 7-17-10w, where oil was found in the Kansas City lime at 3,140-50 feet. The oil rose 3,000 feet in the hole in two hours. The gas was estimated at 1,000,000 feet a day. Both wells will be given a production test as soon as tankage is erected on the leases.

Winfield Townsite Activity

The development of the Winfield Townsite in Cowley County continues at a steady rate. The City Commission granted a permit to the T. M. Deal Oil & Gas Co. for a test immediately east of St. Mary's hospital, in the town lot district. The test is No. 1 Hott, and is located in Alexander's Mound Addition. Another permit asked by the company for a test on Block 15, College Hill Addition, has been held up pending an investigation.

Fire destroyed the rig at the Phillips Petroleum Co. and others' No. 1 Cochran, SE cor. NE NW, Section 15-32-4, Cowley County. This well was completed about five years ago and was one of the largest producers from the Silicious lime in the field. The operators were planning to drill the well deeper in an attempt to increase the failing production when the rig caught fire.

A second fire in the Winfield area occurred at L. McMorrow and others' No. 1 Gaylon, in Section 22-32-4. The derrick and the storage tanks were destroyed.

S. A. Murphy and others' No. 1 Orchard, in Section 22-32-4, was drilling at 2,480 feet. It found only a showing of oil in the shallow sand. It was drilling about 20 feet below the shallow horizon. The same operators' No. 1 Reservoir Hill was pulling the big pipe preparatory to testing the shallow horizon.

In the Voshell Pool

In the south extension area to the Voshell Pool, in McPherson County, Derby Oil Co.'s No. 1 Neufeldt in Section 21-21-3w, was shut down waiting for cement to set. The top of the chat was found at 3,000 feet and the total depth of the well is 3,083 feet. It is the north offset to the Western Gasoline Co.'s No. 1 Wall, which was recently completed for 1,000 bbls.

Barnsdall Oil Co. and others' No. 1 in SW cor., Section 3-19-16w, Rush County wildcat, is a rig. It is located on a block of 480 acres in the southeastern part of the county. The test is about 2 miles northeast of Dewey & Mitchell's

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Smith et al's No. 1 Wilson, C NW SW Sec. 12-18-14w	Rig on ground.
Midwest Ref. Co.'s No. 7 Scheufler, C SW SE Sec. 9-20-11w	Drlg. 3,305-10 ft.; show oil.
Skelton Oil Co.'s No. 1 Ott, C SE SE, Sec. 16-19-14w	Set liner 3,530-46 ft.; show oil; C.O. 3,604 ft.

BUTLER COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Lardson, C SE NW Sec. 13-25-2	Drlg. 200 ft.
Ramsey's No. 1 Michael SW NW NW Sec. 18-27-3	Drlg. 1,985 ft.

CHASE COUNTY

Ryan et al's No. 1 Lipp, C SE Sec. 25-15-6	S.D. 625 ft.

DICKINSON COUNTY

Severe et al's No. 1 Lavengood, NE SW, Sec. 13-13-2	S.D. 4,752 ft.

EDWARDS COUNTY

Mid-Kansas O. & G. Co.'s No. 1 Converse, SW NE NE, Sec. 30-24-18w	Drlg. 3,995 ft.

ELLSWORTH COUNTY

Morgan's No. 1 Andrews, NE SW Sec. 3-17-8w	Rig.
Walker et al's No. 1 Remley, SW SE NE Sec. 23-14-7w	Spudding.
Slick et al's No. 1 Dreford, SW NW Sec. 7-17-10w	Drlg. 3,000 ft.
R. Gear et al No. 1 Kroboth, SE NW Sec. 12-15-10w	S.D. 50 ft.
Johnson Vickers' No. 1 Claussen, C SE NW Sec. 31-15-10w	S.D. 3,364-74 ft.; water.
R. Gear et al's No. 1 Sanberth, C SW SE, Sec. 29-16-9w	S.D. 50 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w	Rig.

HASKELL COUNTY

Victor Martin et al's No. 1 Martin, C NW Sec. 8-28-31w	Rig.

FINNEY COUNTY

National Ref. Co.'s No. 1 Wells, C SW, Sec. 13-23-34w	U.R. 5,140 ft.

HARVEY COUNTY

D. R. Louck's No. 1 Regier, SW SE NW, Sec. 9-23-3w	Fishing 3,370 ft.
Liggett et al's No. 1 Davis, SW SE NE, Sec. 7-24-1	S.D. 2,500 ft.

KINGMAN COUNTY

Panhandle Drlg. Co.'s No. 1 Wetheral, C SE NW SW, Sec. 30-28-10w	12-in. csg. 1,610 ft.; S.D.

McPHERSON COUNTY

Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-2w	Drlg. 385 ft.
Detrick's No. 1 Dalke, NW SE Sec. 16-19-1	S. D. 50 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 28-17-1n	S.D. 580 ft.
Simmons-Canary's No. 1 Krehbiel, SE NW Sec. 33-18-1w	Drlg. 2,750 ft.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE, Sec. 32, 34-43w	T.D. 3,640 ft.; temp. abd.

MORRIS COUNTY

Urschel et al's No. 1 Bersuch, NW NE NW, Sec. 10-17-7	S.D. 915 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w	Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW, Sec. 21-14-16	S.O. 2,190-2,200 ft.; temp. abnd.

PHILLIPS COUNTY

Hall et al's No. 1 Donaldson, C NE NE, Sec. 35-5-18w	T.D. 3,440 ft.; P.B. to 3,210 ft.; shot 15 qts.; show oil.

PRATT COUNTY

Ninnescah O. & G. Co.'s No. 1 Hartesty, SW SE SE, Sec. 28-27-11w	Drlg. 635 ft.

RAWLINS COUNTY

J. G. Durham et al's No. 1 Weaver, SE cor., Sec. 3-2-35w	Abnd. 3,939 ft.

RENO COUNTY

National Union's No. 1 Hill, NE SE Sec. 18-24-4w	Location.
Martin et al's No. 1 Yadu, C NW NW, Sec. 15-24-5w	S.D. 318 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w	Rig.
R. Ramsey's No. 1 Hutton, SW NE SW Sec. 6-20-9w	Drlg. 2,550 ft.
Slick et al's No. 1 Arth, SE NE Sec. 27-18-10w	Drlg. 3,116 ft.
J. Liggett et al's No. 1 Thodel, C NW NW, Sec. 11-21-7w	S.D. 50 ft.

RUSSELL COUNTY

J. Brennan's No. 1 Waly, CNL E½ NW, Sec. 29-13-11w	Rig.

RUSH COUNTY

Skelton et al's No. 1 Brock-Hartman, SW SE NE, Sec. 4-18-16w	S D. 50 ft.

SALINE COUNTY

Twin Mounds Oil Co.'s No. 1 Wells, C W½ NE NW Sec. 20-13-4w	S.D. 3,401 ft.

SEDGWICK COUNTY

Scroggins et al's No. 1 Bartlett, NW SE NW Sec. 35-27-1	S.D. 180 ft.

SHERIDAN COUNTY

Fio et al's No. 1 Shoemaker, SE SW, Sec. 27-7-26w	H.F.W. 4,535-45 ft.; S.D.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE, Sec. 10-33-39w	S.D. 5,521 ft.

SUMNER COUNTY

Trees Oil Co.'s No. 1 Tompkins, SW, Sec. 26-33-1	Location.
Trees Oil Co. and Shell's No. 1 Springate, NE SE SW, Sec. 6-34-2	S.D. 3,639 ft.

No. 1 Greenawalt, a wildcat well which was completed in September, 1931, for 150 bbls. a day from the Silicious lime at 3,825-40 feet.

In an attempt to find production in the area between the Smock-Sluss and Haverhill Pools in southern Butler County, Scanlon and others' No. 1 Marshall, C NE SW, Section 11-27-5, was rigging up. This territory has been attractive to operators for several years and some tests have been drilled along the trend but these were dry holes. This test will be drilled to the Bartlesville sand and to the Mississippi lime if necessary.

In the Johnson Pool, in McPherson County, location has been made for Barnsdall Oil Co. and others' No. 1 Bridgens, SW cor. SE, Section 35-19-3w. It is the north offset to The Texas Company's No. 1 Tipton, recently completed for 1,000 bbls. a day. Another operator interested in the Barnsdall Oil Co.'s No. 1 Bridgens, is the Indian Territory Illuminating Oil Co., which owns the lease and farmed it out to the Barnsdall Oil Co.

Butler County

Duncan and others' No. 1 Rietz, C N half SW SE Section 34-27-5, is a location. Scanlon and others' No. 1 Marshall, C S half NE SW Section 11-27-5, is a rig on the ground.

Cowley County

Deal Oil & Gas Co.'s No. 1 Cloud, SE cor. NE SE SW Section 22-32-4, is a rig on the ground. Wakefield and others' No. 1 Dungey, NW cor. SE NW NE Section 27-32-4, is a location. Roth & Farout's No. 1 Cooper, NW cor. SW Section 6-30-6, is a rig on the ground. Jayner and others' No. 1 Dergeon, SE cor. NE SE Section 32-31-5, was drilling at 600 feet. Brewer and others' No. 1 Treadway, NW cor. SE SE Section 22-32-4, was abandoned at a total depth of 3,509 feet. Roth & Farout's No. 5 Moncreif, C SW NE Section 22-32-4, made 250 bbls. from 3,263-71 feet. Same operators' No. 3 S. W. College, SW cor. NE NW SW Section 22-32-4, was completed for 300 bbls. from 3,300-05 feet.

Dickinson County

Severs and others' No. 1 Livengood, C W half NE NW Section 13-13-2, was abandoned at a total depth of 4,752 feet.

Douglass County

Pure Oil Co.'s No. 1 Lemb, NW cor. SE Section 31-14-19, is a rig.

Ellsworth County

Gurley Brothers and others' No. 1 Union Pacific, NW cor. SW Section 7-14-7w, is a location.

Ford County

Swain and others' No. 1 Henthorn, C NW Section 21-25-24w, an old well drilled deeper, is drilling at 5,203 feet.

Harvey County

Phillips Petroleum Co.'s No. 1 Warkenline, NW cor. SW SW Section 20-22-3w, is a rig on the ground.

Phillips County

Hall and others' No. 1 Donaldson, C NE NE Section 25-5-18w, was abandoned at 3,205 feet.

Greenwood County

Lewis and others' No. 1 Voot, C SW NW NW Section 15-24-10, is a machine. Findleis and others' No. 1 Eureka Bank, SW cor. NW NE Section 16-24-12, is a location. Shull Drilling Co. and others' No. 3 Johnson, NE cor. SE SE NW Section 16-24-12, is a location. Ward McGinnis' No. 6 Edwards, NW cor. SE NW NE Section 32-23-11, is a rig on the ground. Simmons and others' No. 1 Klassen, NE cor. SW Section 12-23-11, was drilling at 1,765 feet. Rhoades and others' No. 4 Braddock, SW cor. SE SW Section 23-22-12, is a location. Landon and others' No. 1 Smith, SW cor. NW NW Section 8-24-12, was drilling at 800 feet. Polhamus & Smith's No. 1 Benchat, SE cor. NE Section 5-24-12, was drilling at 650 feet. Federal Oil Co.'s No. 1 Dalton, C W L SW NW Section 5-24-13, was completed for 10 bbls. from 1,628-36 feet. Houston-Okla Oil Co.'s No. 1 Berry, C of Section 28-23-13, made 50 bbls. of oil from 1,746-64 feet.

Reno County

Barnsdall Oil Co.'s No. 1 Baughman, C NW NE Section 34-23-4w, is a rig. Olson Drilling Co. and others' No. 1 Duckworth, C SE NE Section 3-23-4w, was completed for 600 bbls. from 3,265-75 feet.

Rush County

Barnsdall Oil Co.'s No. 1 Schultz, SW cor. Section 3-19-16w, is a rig.

Sedgwick County

Continental Oil Co.'s No. 2 Brown, C S L NW SW Section 15-25-1, is a rig. Same company's No. 2 Casey, SE cor. NE Section 16-25-1, is a rig. Mendenhall's No. 3 Johnson, C NE NE Section 8-25-1, is a location.

McPherson County

Mid-Kansas Oil & Gas Co.'s No. 2 Bridgen, SE cor. NW SW Section 2-20-3w, is a rig. Marileen and others' No. 3 Munn, NE cor. SE SW Section 6-20-1w, is a rig on the ground. Palmer Phillips Petroleum Co. and others' No. 4 Winn, NE cor. SW NW Section 7-20-1w, is a rig. Maddison and Aylward's No. 1 Krehbiel, SE cor. NE SE Section 29-21-3w, is a rig on the ground. Barnsdall Oil Co.'s No. 1 Bridgen, SW cor. SE Section 35-19-3w, is a rig. Breslin and others' No. 1 Hill, SE cor. Section 27-19-2w, is a rig on the ground. Mid-Kansas Oil & Gas Co.'s No. 1 Etta, NW cor. NE SE Section 3-20-3w, was completed as a dry hole at 3,532-44 feet. Prunty Drilling Co. and others' No. 1 Nelson, SW cor. NW SW Section 25-19-3w, was abandoned at 3,500 feet. Carey & Lewis' No. 3 Holt, SW cor. SE Section 13-19-2w, made 1,908 bbls. from 3,397-3,402 feet. McBride, Inc.'s No. 3 Lovett, SE cor. SW Section 13-19-2w, made 1,736 bbls. from 3,396-3,406 feet. Lario Oil & Gas Co. and others' No. 2 Law, NW cor. NE Section 24-19-2w, made 1,932 bbls. from 3,399-3,401 feet. Wolfe Creek Oil Co.'s No. 1 Krehbiel, NE cor. NW NW Section 25-19-2w, is an old well drilled deeper, total depth 2,955 feet. Darby Oil Corp. and others' No. 2 Coon, SW cor. SE SW Section 20-19-1w, made 1,248 bbls. from 3,422-30 feet.

Sumner County

Austin and others' No. 1 Foy, SW cor. SE SE Section 14-34-1w, is a rig on the ground. Southland and others' No. 1 Rorscrams, SE cor. SW SE Section 17-35-2, was drilling at 2,300 feet.

Woodson County

Pure Oil Co.'s No. 14 Winterscheid, NW cor. NE Section 6-24-14, is a machine. Same company's No. 13 Winterscheid, NE cor. NW Section 6-24-14, made 25 bbls. from 1,563-80 feet. Sheedy and others' No. 1 Barrien, C S L SW NW Section 14-25-13, made 75 bbls. from 1,467-97 feet.

Third Gas Well in Hebron, Pa., Area Largest Yet Completed in Field

BY SPECIAL CORRESPONDENT

CORNING, N. Y., July 16.—The Hammondsport Natural Gas Co.'s test near Chili, Monroe County, New York, uncovered a heavy flow of gas at 470 feet. The gas ignited and the flame shot nearly to the top of the 72-foot derrick. It was put under control. The pay sand is said to be Medina and it was penetrated to a depth of 40 feet.

The third big gasser in the Hebron Field in Potter County, Pennsylvania, was brought in in the past week by G. H. Shrack on the Tassell estate in Hebron Township. The well started at the rate of 20,000,000 feet per day from sand at 5,334 feet. The rock pressure was reported at 2,100 pounds. The Williamsport Natural Gas Co.'s No. 1 Nugent & McGraw was good for 16,000,000 feet and the discovery well of Hungiville and others on the Sam Booth farm was good for 8,000,000 feet. The Hebron gas field is about 25 miles southeast of Bradford and about half that distance from the eastern edge of the Bradford oil field.

The Belmont Quadrangle Drilling Co., which opened the Dundee gas field in Yates County, has surrendered a number of leases in the Tioga County Field. The North Branch Development Co. has also let a number of leases go back to the landowners. When the Tioga Field was opened up by the Allegany Gas Co. with a big gasser, a leasing campaign was started that spread to all parts of the county. A large number of deep dry holes have shown that while the Oriskany sand underlies a very large area in northern Pennsylvania it is nonproductive of oil or gas in much of the large area. Some of the deepest wells ever drilled in Pennsylvania have been sunk in Tioga and Bradford Counties in the hope of getting the big pay that underlies Lawrence and Farmington Townships in Tioga County.

The village of Penn Yan, N. Y., is to have natural gas for commercial and domestic purposes. The New York Central Electric Corp. has made contracts covering the purchase of gas in the Wayne Field and announces that orders have been placed for pipe and material for a gas system covering the village, which has about 5,000 inhabitants.

The village of Bath, the county seat of Steuben County, expects soon to have gas from the Rathbone Field in Steuben County.

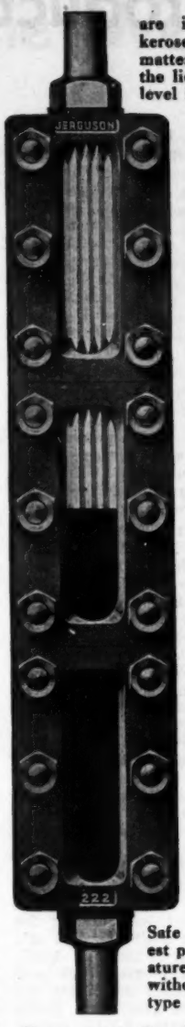
The Hungiville Development Corp. has applied for a charter in Pennsylvania. R. H. Hungiville opened the Hebron gas field in western Potter County. Associated with him are three well known oil men, Messrs. Dusenberry, Yahn and Messer of Olean, N. Y. They are drilling their second well on the discovery lease. It is down about 600 feet at last report.

Goble and others are drilling below 3,310 feet in their No. 1 Burdette in Lawrence Township, Tioga County, after tapping a 300,000-foot flow of gas at 3,305 feet.

The Lycoming Natural Gas Co. is drilling at 800 feet in No. 1 Finch in Farmington Township, Tioga County.

JERGUSON

REFLEX GAGES



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Well in Many Area of Zwolle Field Extends Production a Mile and a Half Northeast

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., July 18.—The only bright spot from the completions in this division during the past week was a good well in semiwildcat territory northeast of the Many area of the Zwolle Field which extended production 1½ miles northeast of previous proven lines. The other six completions were dry holes from widely scattered districts, but these results were offset by the announcement of two tests to be drilled in North Louisiana to the Trinity sand, and in an area very likely to produce from that horizon.

The extension to the Zwolle Field was Williams & Spears' No. 1 Williams, Section 31-8-10, flowing 500 bbls. daily through one-quarter inch choke from 2,468 feet. The back pressure registered 125 pounds. The new well is 1½ miles northeast of the original eastern extension, uncovered last year in Section 1-7-11. Since the discovery of this eastern production, the operations have extended to the south for several miles and this is the first good well in the opposite direction. Along with this one good producer, the Zwolle area furnished four dry holes but only one was inside the lines of proven production. The latter was Baird Brothers' No. 1 S. S. Martinez, Section 2-7-13, dry and abandoned at 2,487 feet. R. L. Gay's No. 11 Bowman Hicks, Section 14-7-14, in the Blue Lake area, was finally abandoned as dry at 2,325 feet. The test was first drilled to a depth of 2,596 feet, encountering the base of the chalk at 2,579 feet and salt water from this point to the total depth, after which it was plugged back and tested at the abandoned depth. On the outer edge of eastern area, J. I. Hall's No. 1 Williams, Section 3-7-10, topped the marl at 2,752 feet and the chalk at 2,795 feet. The well had a slight show of oil at 2,831 feet but was abandoned at that depth. About 2 miles southwest of the western pool, J. H. Askew's No. 1 Sabine Lumber Co., Section 9-7-13, was abandoned in salt water at 2,455 feet. In St. Francis County, Arkansas, Field & Jones' No. 1 White, Section 1-4n-2e, was dry and abandoned in Paleozoics at 3,411 feet. The other dry hole was reported from Harrison County, East Texas. The Lloyd Oil Corp.'s No. 1 Timmons, John Findley Survey, was abandoned at 4,195 feet after being inactive for the past six months.

Trinity Tests

As stated in these columns for the past year, the best chance for an oil field in North Louisiana is from the Trinity sand, and the announcement of any tests to be drilled in an area likely to produce from this horizon causes more than ordinary interest. Two such blocks have been assembled north and east of the Sugar Creek Field of Claiborne Parish. This field produces gas with a high gasoline content from the Oolitic lime of the upper Trinity around 4,350 feet. O J. Collins has assembled one block of 11,000 acres centering around Section 13-21-5, Claiborne Parish, 10 miles northeast of the Sugar Creek Field. A cash bonus was paid the landowners and the contract calls for a 4,500-foot test to be started by January 1, 1933. A good geological report has been made of this area for several years. The subsea Trinity structure on the acreage has been pretty definitely defined from wells in the Sugar Creek area and two wildcats drilled in the vicinity of the block about three years ago. The Dixie Oil Co. drilled a well in this area in 1928 to a total depth of 5,034 feet, its No. 1 Gilbert, Section 27-21-5. A show of gas was encountered in the Sugar Creek horizon from 4,387 to 4,410 feet, and the well logged 47 feet of good sand under the anhydrites and Oolitic lime from 4,387 to 4,471 feet. This is the best sand condition of any well drilled so far to the Trinity horizon in North Louisiana. The well proved to be, structurally, 150 feet higher than the highest well in Sugar Creek, and was probably on the edge of another and higher structure. Another Trinity wildcat test, 10 miles southeast of the Dixie well and east of Sugar Creek, was the Arkansas Natural Gas Co.'s No. 1 Lewis, Section 26-20-4, over the line from Claiborne in Lincoln Parish. This test had a good show of gas around 4,350 feet in the same horizon as the Dixie and Sugar Creek wells. A check on the logs of the several tests reveals the subsea depth on top of the anhydrites of the Dixie well to be 3,459 feet, the Arkansas Natural Gas test to be 3,519 feet, and the highest well in the Sugar Creek Field to be 3,600 feet.

The other Trinity test for this area will be drilled by Benedum & Trees. These operators have assembled a block of 8,000 acres centering around Section 23-20-4, Lincoln Parish. This block is 1½ miles north of the Arkansas Natural Gas Co.'s No. 1 Lewis, Section 26-20-4, drilled two years ago to a total depth of 4,397 feet. The contract calls for a 4,500-foot test to be started by October 1.

New Locations

Twelve new locations were made in the Zwolle Field and three wildcats are rigging up to drill in as many parishes in North Louisiana. On the northeastern edge of the Haynesville Field, W. E. Rembert has derrick up on No. 1 Hunt in Section 18-23-8. A shallow test will be made to the Nacatoch sand on a 500-acre block assembled by this operator. Production in the Haynesville Field comes from the Blossom sand around the 2,700-foot level. A large block in the northern part of Winn Parish, consisting of 15,000 acres, recently blocked up by Tex Lloyd, has been transferred to the P. V. T. Oil Co. This company is rigging up to drill No. 1 Southern Advance Bag & Paper Co. in Section 28-13-13 Another test is reported for DeSoto Parish, G. C. Smith and others have set 10-inch surface casing in their No. 1 J. A. Wollums, Section 30-12-12.

MISSISSIPPI

All of the recently spudded Mississippi and Alabama wildcats are actively making hole. In the western part of Hinds County, Mississippi, the Mississippi-Minnesota Oil Co.'s No. 1 Edwards Land Co., Section 23-6n-4w, is reaming to the bottom at 3,050 feet after being shut down for two weeks. Stauffer & Kouri's No. 1 Bond, Section 18-2n-14w, Lamar County, is drilling in marl at 2,110 feet. In Lowndes County, central eastern Mississippi, the Lowndes County Development Co.'s No. 1 Carr estate, Section 34-17n-16e, is drilling in red shale in the Tuscaloosa at 2,100 feet. P. J. McAlpine is drilling in sandy lime at 1,000 feet in his No. 1 Rye, Section 22-15s-17w, in Monroe County. A half dozen wells in the proven gas area of Hinds and Rankin Counties, Jackson Field, have either set casing on top of the chalk or are arranging to do so preparatory to drilling in.

ALABAMA

In Lamar County, Alabama, the De Soto Oil & Gas Corp.'s No. 1 Gardener, Section 22-15s-16w, set 6⅝-inch casing at 2,617 feet. The test was drilling in sandy lime at 2,670 feet, and is reported to have bailed dry with a show of salt water at 2,680 feet. The operators believe that the water is coming from above through a faulty casing seat and arrangements are being made to reset. In the southern part of Alabama, Mobile County, the Ohio Oil Co.'s No. 1 Bethel, Section 34-3s-2w, is drilling in sandy shale at 3,000 feet.

Daily Average Runs

The Zwolle Field increased its daily production during the past week to more than offset the loss of the week before and for the first time in many months had a daily average run of over 8,000 bbls. This gave the fields of North Louisiana and Arkansas a daily average increase of 1,615 bbls., the former going to 30,300 bbls., or an increase of 1,625 bbls. daily, while Arkansas was losing 10 bbls. per day average. The daily average runs from the several pools were:

NORTH LOUISIANA

	Bbls.
Caddo light	5,100
Caddo heavy	1,905
Cotton Valley	880
DeSoto and Red River	1,970
Elm Grove	295
Haynesville	4,150
Holly	260
Homer	2,885
Pleasant Hill	285
Sarepta-Carterville	920
Urania	3,600
Zwolle	8,080
Total	30,330
Total previous week	28,705
Increase	1,625

ARKANSAS

Champagnolle	1,800
El Dorado	3,100
Lisbon	495
Nevada	960
Smackover light	2,885
Smackover heavy	24,165
Stephens	710
Urbana	S.D.
Total	34,115
Total previous week	34,125
Decrease	10
Total both states	64,445
Total previous week	62,830
Increase	1,615

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

BEAUREGARD PARISH

Company, well, farm name, section and block— Remarks:

DeRidder Development Co.'s No. 1 McMahan, 158 ft. S, 160 ft. W NE cor. NW, Sec. 33-2s-9w ..... Set 6⅝-in. 1,100 ft.

BIENVILE PARISH

Blacklake Dev. Co.'s No. 1 Holstow, 600 ft. W, 100 ft. S, NE cor. SE SE, Sec. 17-13-6 ..... Drlg. shale 2,102 ft.

CALDWELL PARISH

Carter Bell's No. 1 Taylor, 150 ft. S, 150 ft. E, NW cor. NE SE, Sec. 17-14-4 ..... S.D. 3,620 ft.

Hudson et al's No. 1 Burton, Sec. 35-12-2e ..... S.D. 2,950 ft.

CATAHOULA PARISH

National Drlg. Co.'s No. 1 Marsh McMillen, 70 ft. N, 100 ft. W, C, Sec. 26-9-6 ..... T.A. 3,097 ft.

CLAIBORNE PARISH

W. E. Rembert et al's No. 1 Hunt, 150 ft. N and E, SW cor. E half NE NE, Sec. 18-23-8 ..... Location.

DE SOTO PARISH

J. M. Bridges et al's No. 1 Joiner, 660 ft. S and E, NW cor., Sec. 33-11-12 ..... Drlg. chalk 1,400 ft.

Coker et al's No. 1 Boone, 200 ft. N and W, SE cor. SW NW, Sec. 12-10-11 ..... Set 10-in. 60 ft.

Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor., Sec. 31-14-15 ..... Drlg. 2,375 ft.

S. A. Gus's No. 1 Dowling, 469 ft. E, 352 ft. S, NW cor. NE, Sec. 31-14-14 ..... S.D. 2,970 ft.

E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW, Sec. 30-13-15 ..... Coring 3,710 ft.

DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-13-13 ..... Rigging up.

G. C. Smith et al's No. 1 Wollums, 330 ft. N and W, SE cor. Sec. 30-12-12 ..... Set 10-in. at 101 ft.

Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13 .... Drlg. shale 2,714 ft.

GRANT PARISH

Security Pet. Corp.'s No. 1 Swope est., Sec. 16-9-1e, 1,693 ft. N, 220 ft. E, SW cor. Sec. ..... W.O.S.R. 1,585 ft.

O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 314 ft. S, NW cor., Sec. 16-9n-1e ..... Derrick.

NATCHITOCHES PARISH

W. M. Coates' No. 1 Ross Olive, Sec. 10-9-10, 660 ft. S and E from cen. of Sec. ..... S.D. 2,010 ft.; repairing rig.

Dr. H. S. Gerson's No. 1 Smith, Sec. 11-10-8, 2,000 ft. N, NE cor. of irregular Sec. 10, in Sec. 11 ..... S.D. 1,875 ft.

R. A. Keaton's No. 1 Stephens, Sec. 25-10-6, 320 ft. N and W, SE cor. NW NW ..... S.D. 1,700 ft.

H. W. Perritt's No. 1 Cook, 165 ft. E, 105 ft. N, SW cor. NE SW, Sec. 3-8-9 ..... S.D. for water 2,624 ft.

H. W. Perritt's No. 2 Brown Lbr. Co., 300 ft. N and W, from center Sec. 29-8-9 ..... S.D. 2,690 ft.

Sabine Bayou Dev. Co.'s No. 1,130 Caw, 330 ft. N and E, SW cor. SE, Sec. 9-12-5 ..... Set 10-in. 102 ft.; drlg. 500 ft.

Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 875 ft. N, 550 ft. E, C, Sec. 23-6-6 ..... S.D. 2,504 ft.

OUACHITA PARISH

Wilson & Mitchell's No. 1 Williams, Sec. 5-16-1e, 330 ft. E, 240 ft. S, NW cor. SW SE ..... S.D. 3,480 ft.

RED RIVER PARISH

C. F. Davis' No. 1 Pierson, 500 ft. S, 317 ft. E, NW cor. SW NW, Sec. 12-14-11 ..... Location.

Lawrence Decker, tr.'s No. 1 Madden, 1,650 ft. S and W, NE cor., Sec. 21-14-10 ..... Drlg. 920 ft.

La. Oil Dev. Co.'s No. 2 La. Delta Pecan Co., 2,950 ft. S, 300 ft. E, NW cor., Sec. 27-13-11 ..... Spudded and S.D. 50 ft.

RICHLAND PARISH

National Gas Co.'s No. 1 Singletary, 1,980 ft. N, 660 ft. W, SE cor., Sec. 20-18n-7e ..... S.D. 2,515 ft.

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Conroe Field Restricted to Ten Barrels Per Acre, Limit of 400 Barrels for Any One Well

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., July 18.—A restriction of pipe line purchases from the new Conroe Field, Montgomery County, to a maximum of 10 bbls. daily per acre with a limit of 400 bbls. daily for any one well has been set by the Humble Oil & Refining Co. A statement to this effect was issued by that company late the past week preparatory to the putting into operation by the Humble Pipe Line Co. of its new 8-inch line and first pipe line outlet from that field some time early this week. Coincident with this announcement, Humble Oil & Refining Co. posted the following prices for Conroe crude: 35 to 35.9 gravity, 90 cents; 36 to 36.9 gravity, 92 cents; 37 to 37.9 gravity, 94 cents; 38 to 38.9 gravity, 96 cents; 39 to 39.9 gravity, 98 cents, and 40 gravity and above, $1. These prices are the prevailing postings for Gulf Coast and Mid-Continent crudes of corresponding gravity with the exception of 35 to 35.9 gravity which is posted in Gulf Coast fields at 91 cents.

The statement issued by the Humble companies follows in full:

"On the assumption that orders of the Railroad Commission for prevention of waste in said field (Conroe) will be complied with and enforced, the Humble Oil & Refining Co., in accordance with its established policy, will share its market for crude from the field with other producers who comply with the orders of the Railroad Commission for prevention of waste by drilling not more than one well to 20 acres.

"The basis of its takings for the present will be 10 bbls. for each acre included in the lease from which the purchases are made but will in no case exceed 400 bbls. per day from any one well.

"Takings from its own leases will be on the same basis as its purchases from others."

This is the first production proration which has been applied to the Conroe Field. Recent orders adopted by the Railroad Commission had to do solely with spacing, regulation of drilling, completion and producing methods and equipment, and elimination of hazards and waste but did not set any limit on production, except so far as the gas-oil ratio is concerned. Based on the maximum of one well drilled to each 20 acres, as set by Railroad Commission order, the new pipe line proration policy will place a maximum of 200 bbls. to each such unit, or well. Giving the field 3,000 acres, a conservatively low estimate, this restriction will limit the output of the field to 30,000 bbls. daily. The area of the field, however, has been variously estimated up to 10,000 acres although so far there is very little guide to determining the extent of the productive acreage.

Considering what is looked upon as the immediate Conroe Field, Humble Oil & Refining Co. itself is the largest holder of acreage and thus is affected as much, if not more, than any other operator there. Although a number of other companies have main lines comparatively close to the field, none has taken any definite step toward connecting so Humble's action will govern all crude moved by pipe line. In view of the large amount of holdings which the Humble company has acquired through quiet and steady buying, it is likely no other lines will be considered unless the field reaches proportions not now expected.

Preparing to Test

Interest at Conroe now is centered in Heep Oil Corp.'s No. 1 Cartwright, John Davis Survey, which at latest report was preparing to test a sand showing oil at a total depth of 5,186 feet, where a one-string setting of 5-inch (outside diameter) casing and 43 feet of sand was made. The well is reported to have only 14 to 15 feet of actual oil saturated sand. This well was completed last April 11 as a wet gas well at a total depth of 5,078 feet. At that time, only one other well, the discovery producer (G. W. Strake's No. 1 South Texas Development Co.), 1½ miles to the southeast, had been completed in the area, and it also was a wet gas well. Since then, later developments in which two additional wells have been brought in, each of which went lower into the pay and were completed as oil producers, indicated that the Cartwright well, as well as the Strake discovery well, in reality was completed only in the top of the pay, or in a possible separate gas horizon overlying the oil pay and that by deepening it it might make an oil well. The belief was strengthened by the fact that the fluid production of the Cartwright and the first Strake wells was a light gravity almost water colored, crude or distillate, rather than a gas condensate. Completion of the Cartwright well will result in still greater importance being attached to the area and will help to unravel some of the structural uncertainties which have existed. The depth at which the Cartwright well has been bottomed has indicated, however, a decided dip in that direction, a dip not indicated appreciably by the Hockleyensis marker.

A statement by this writer in the July 14 issue of The Oil and Gas Journal erroneously gave the top of the Hockleyensis in Rowe and Flowers' No. 1 Varner, Ransom House Survey, south of Conroe and about 3½ miles to the west of the field, as being at 4,028 feet (3,847 feet subsea). Later information has indicated that the Hockleyensis was not topped until 4,165 feet (3,984 feet subsea). The difference changes the picture and instead of that well running high it is somewhat lower than the discovery wells. This well encountered a sand at 4,222-4,303 feet during the week but in a drill stem test showed salt water. It now is drilling in shale below 4,400 feet.

As yet no additional wells, except the Cartwright well, have reached the pay horizon although three or four at latest report were drilling below 4,900 feet or within 100 feet of where the top showings were encountered in the completed wells. Thirteen tests now are actually drilling in the immediate Conroe district. One additional new location was made during the week, that being Hamilton and others' No. 1 Freeman, John Davis Survey, an east offset to Heep Oil Corp.'s No. 1 Freeman, now shut in waiting pipe line connection.

Jackson Trend

Southwest of the Conroe district along the same "Jackson" trend in what is known as the Pinehurst district, Lowrie & Young have made location for their second test, No. 1 Damuth, T. J. Nichols Survey. The first test was abandoned as dry at 4,755 feet. Since then several core tests have been drilled, the second deep test being a little over 300 feet to the east and south of one of the core tests, also known as No. 1 C. A. Damuth. About 15 miles to the east and slightly north along the trend, Miller Production Co. has location for No. 1 Foster Lumber Co., M. B. Lawrence Survey. Exploration of this Jackson trend along the Reynosa-Lagarto contact extending for several hundred miles approximately paralleling the present coast line, has been the purpose of a half dozen new tests which have been started up or located within the last several weeks with particular interest centered along the trend in Colorado, Austin, Waller, Montgomery, San Jacinto and Polk Counties. In each of these counties there has been considerable new activity in leasing and drilling lately.

Barbers Hill

Several good wells were completed in the salt dome district of the Gulf Coast the past week, chief of which was Mills Bennett Production Co.'s No. 4 Means, east side of Barbers Hill, which came in flowing 1,845 bbls. daily with a pressure of 445 pounds through a one half-inch choke. This well is one of the highest and closest in wells which have been drilled in development of the sands underlying the salt overhang and is believed to be producing from about the contact of the Oligocene and Miocene. Total depth of the hole is 4,406 feet but the sand is Oligocene, the same which is encountered around 5,200 feet in wells skirting the outer edge of the dome.

Colorado County

Coyle-Concord Oil Co.'s No. 1 Nelson, I.&G.N. Survey, Section 23, southern Colorado County, late in the week had drilled plug to test a sand at 4,021-25 feet in which 26 feet of 7-inch screen already has been set in a one-string casing setting. This test, a rank wildcat, in the middle of a 20,000-acre block, recently tested 600 pounds dry gas in second drill stem test. In the same county but on the extreme east side, an interesting wildcat is being started in Bunte and Shell Petroleum Corp.'s No. 1 Rudolph Matuska, Joshua Henneke Survey. This is on what is known as the Bernardo prospect, which was blocked by Shell Petroleum Corp. several years ago following geophysical exploration. Colorado is one of the unproductive counties so far on the coast.

Rabbs Ridge

At Rabbs Ridge, Fort Bend County, Humble Oil & Refining Co.'s No. 5-A Lockwood & Sharp was completed flowing 71 bbls. hourly from the deep pay at 5,334 feet. Gulf Production Co. and Humble Oil & Refining Co.'s No. 3 Booth-Meyers, north end of the field, came in flowing 36 bbls. hourly from the pay at 5,283 feet. The latter's No. 2-A Booth has been junked at 4,586 feet following a gas blowout the previous week and a new hole is being started. The Texas Company's No. 1 Wolters, 1,800 feet to the north of production, and which is in a sand showing oil at a total depth of 5,251 feet with 9⅝-inch casing cemented at 5,251 feet, is preparing to drill plug to test with promise of an important extension.

Port Barre

Gulf Refining Co. is resuming development at Port Barre, St. Landry Parish, Louisiana, where it has a new location for No. 2 Wilson & Cockran, located between 500 and 600 feet to the north of No. 1, which early this year opened new production on the north flank and in a slightly shallower sand.

Humble Field

At Humble, Harris County, Texas, Rio Bravo Oil Co. has location and derrick up for a semiwildcat on the southwest side of the dome in its No. 1 Westheimer, 965 feet west and 300 feet north of the southeast corner of the Westheimer Subdivision, John Jones Survey. This location is between flank production on the west flank and that on the south, being approximately 2,000 feet southeast around the dome from the west side and over a mile northwest around the dome from the south side deep oil.

Hardin County

Houston Oil Co. and Republic Production Co. are rigging up for the first test on the Ariola geophysical prospect in Hardin County. This test is on the Ariola fee property. The week also was marked by the staking of locations for more than a half dozen new wildcat tests, not including those in proved or semiproved territory.

East Hackberry

Union Sulphur Co.'s No. 2 Gulf Land (Humble lease), northwest flank of East Hackberry, Cameron Parish, Louisiana, has been abandoned in salt at 5,720-5,841 feet after twisting drill stem. This is the third test for that sector of the dome, the first (same company's No. 1 Gulf Land, Humble lease) having opened production on that flank by being completed for 1,500 bbls. in sand at 6,001 feet. The same company's No. 1 Gulf Land, Pure lease, still is fishing drill stem with bottom of hole in oil sand at 8,316-24 feet.

Gulf Coast Fields and Wildcats

Week Ending July 16

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks:
Grant & Baker's No. 1 Chesley, W. C. White Sur., 150 ft. from NW line and 150 ft. from SW line of 26-acre tract	Drlg. sandy shale 1,425 ft.

WEST COLUMBIA—BRAZORIA COUNTY

Hogg et al's No. 1 Hogg, Martin Varner Sur., 1,250 ft. N and 125 ft. E of Sw cor. of Gulf, W. C. Hogg 200 ac.	T.D. 4,840 ft. in water sand; plugged to 3,200 ft.

BARBERS HILL—CHAMBERS COUNTY

R. E. Ferrell's No. 2 Wilburn, Henry Griffith League, 215 ft. W of No. 1 in center of 45-acre tract	Lime 2,527 ft; waiting orders.
Humble Oil & Ref. Co.'s No. 1 Kirby, Henry Griffith League, 520 ft. N along E line from SE cor. of tract, thence 75 ft. W at right angles, thence 75 ft. N at right angles	Location.
Mills Bennett Prod. Co.'s No. 4-A E. W. Barber, Henry Griffith League, 300 ft. W of No. 3-A, 50 ft. N of S line	Drlg. shale and lime 4,421 ft.
Mills Bennett Prod. Co.'s No. 3 Kirby, Henry Griffith League, 645 ft. E. 40 ft. S. NW cor. of tract	Drlg. shale 3,874 ft.

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Increase in Completions in Central Ohio Field; Indiana Developments Show Improvement

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, July 18.—The Central Ohio division has quite a few wells drilling but several have not been completed due to the great depth required, especially in Stark, Guernsey, Coshocton, Muskingum, Athens, Tuscarawas, Belmont, Licking and other counties.

In the old Lima Field of northwestern Ohio the only completion reported was the Upper Sandusky Oil & Gas Co.'s test on the H. and H. Saltsman farm, Section 28, Crane Township, Wyandot County, reported a gas well with 1,000,000 feet at from 1,321-43 feet. Four other wells are under way in the same county: R. W. Kirk and others' No. 2 Elmer E. Moser farm, Section 12, Ridge Township; Harpster and others' No. 1 L. G. Beis farm, Section 11, Crawford Township; No. 2 on the McLeod Brown farm, Section 21, Tymochtee Township, and McPheron, Miller and others' No. 5 Bowman-Billhart farm, same section.

Bert Sheldon is starting a test on the Ina Wederts farm, Section 30, Blanchard Township, Hardin County. Nick Matskvich is drilling on the Harry Shumaker farm, Section 10, Hopewell Township, Seneca County. George W. Ackerman and others are drilling on the Mary McElhaney farm, Section 15, same township, and the Industrial Oil & Gas Co. is drilling on the H. W. Hunker farm, Section 11, same township.

CENTRAL OHIO

The Central Ohio Field showed a slight improvement in the number of completed wells. The best of the new wells is E. C. McQuillan and others' test on A. K. and W. W. Shearer farm, Section 5, Monroe Township, Guernsey County, which produced 21 bbls. initial at a total depth of 3,677 feet. This well has been delayed for quite a long time by a bad fishing job at 2,900 feet.

In Medina County, Edson Sons Co.'s No. 3 Dave Geisinger farm, Lot 9, Chatham Township, produced an initial of 10 bbls. from the Berea sand from 320-65 feet. In Harrisville Township, Barnhart and others' No. 3 W. P. White farm, Section 17, was dry in the Berea sand from 419-72 feet, and No. 4, same farm, produced an initial of 12 bbls. from the Berea sand from 416-46 feet.

In Holmes County, Monroe Township, the Lydic Oil & Gas Co.'s No. 2 on the Ralph Clinage farm, Section 20, produced an initial of 3 bbls. from the Berea sand from 666-75 feet.

In Richland County, Jefferson Township, the Commonwealth Gas Corp. drilled a dry hole on the Roy B. Dickson farm, Section 24.

In Athens County the Standard Natural Gas Co.'s test on the J. R. Young farm, Section 12, Waterloo Township, drilled into salt water and it has been abandoned as a dry hole.

Wittmer Oil & Gas Co. is drilling on the John C. Knowlton farm, Section 31, Nelson Township, Portage County. Same company has a rig up on the Dallas H. Strock farm in Southington Township, Trumbull County.

O. K. Oil & Gas Co. is drilling deeper on the Paluga-Lynn farm, Section 34, Union Township, Belmont County. Nichter and others made a location on the H. Schriner farm, Section 18, Plain Township, Stark County. In Jackson Township, same county, Martin and others are starting a test on the Frank Burdel farm, Section 24. East Ohio Gas Co. has a rig on the Edward A. Frank farm, Section 14, same township; also a rig on the Ruth Grant farm, Section 24, and has made a location for a second test on the H. S. Belden, Jr., farm, same section and township.

In Athens County, Rome Township, I. C. Robinson is starting No. 4 on the Amy J. Lucas and others farm in Section 16.

Wehrle Gas Co. is drilling deeper on the Charles Kreager farm in Lot 33, Hopewell Township, Licking County.

G. W. Heinrich and others are drilling a second test on the H. H. Johnson farm, Section 28, Fitchville Township, Huron County.

In Lorain County, Ramage & Willis have a rig on the Francis E. Morgan farm, Lot 94, Eaton Township, and McMillan and others are drilling on the Sylvia Jackson farm, Section 15, Carlisle Township.

INDIANA

A nice improvement is noticeable in the southern portion of Indiana, along the Ohio River area. Conyers & Bugg's No. 6 on the Frank Cassidy farm, NW Section 30, Clark Township, Perry County, showed an initial of 50 bbls. Same firm's No. 3 on the Alvin Franchville farm, NW Section 30, had an initial of 5 bbls., and No. 4, same farm, is now drilling. In the same township, Ohio Oil Co.'s No. 1 George K. Beard farm, SW Section 19, was a dry hole. No. 3, same farm produced 30 bbls. the first 24 hours, and No. 2, same farm, is now drilling. Conyers & Bugg are drilling No. 5, Lee Aders farm, Section 19, Clark Township, while H. A. Mann is drilling No. 1 on an unknown farm in the NW of Section 33, same township. In Anderson Township, same county, Collins and others drilled a dry hole on the Emery Simpson farm, NW Section 30, at a depth of 519 feet. Moorehead & Blank are drilling a second test on the James C. Cassidy farm, NW Section 24, Anderson Township.

In Spencer County the Maxwell Petroleum Corp. is drilling No. 3 Anna Hawk farm, SE Section 8, Ohio Township.

In Vigo County, Prairie Creek Township, Dr. Charles C. Taliaferro, Jr., reports a dry hole in the northeast corner of the Cyrus L. Lane farm, Section 32. Siosi Oil Corp. is drilling No. 22 on the William Riggs farm, same section.

Steffy and Grass abandoned their No. 1 Sauter farm, Section 3, Huff Township, Spencer County. Van's Oil, Inc., is drilling No. 3 A. G. Grass farm, same township.

In Daviess County, Harrison Township, Ben D. Ruble reports a dry hole in No. 2 in the NW NW Section 34, on the Ben Gilloogy farm.

O. A. Thayer's test on the Ruby Hite farm, NW Section 13, Busseron Town-

(Continued on Next Page)

New Test Drilling in Quemahoning Township, Somerset County, Pennsylvania, Near Sand

By STAFF CORRESPONDENT

PITTSBURGH, Pa., July 18.—After a shutdown of several months, the American Natural Gas Co. has resumed drilling in Quemahoning Township, Somerset County, where there are two fair gas wells, the most eartery in the lower Eastern fields. The new test is drilling on the Richard Lohr farm, west of the Stoyestown-Somerset Road, and about 1,700 feet northeast of the Royal Rhodes test, which was a dry hole with a slight showing of gas in the Injun sand. The elevation of the derrick floor in the new test is 1,991 feet and the tools have reached a depth of 1,320 feet. Production is looked for in the Injun sand, which is found at about 1,400 feet.

Somerset County has presented an enigma to these operators. The discovery well in this township, near Texas School, on the O. S. Miller farm, came in showing for about 750,000 feet a day from a formation at a depth of 2,550 feet. About a third of a mile northeast, and on the William H. Miller farm, a second well was brought in at a depth of 2,650 feet, the same formation as the discovery, and which was considerably larger. Two subsequent tests in line of formations proved void of gas in commercial quantities. Farther north and west other tests proved dry. All tests are east of Laurel Ridge and west of the Negro Mountains and are off the Somerset syncline.

Nine producers, with an initial production of 101 bbls., one gas well and one dry hole was the total of the week's work in the three divisions of the lower eastern fields. This is an unusual showing as of late most of the completions have been confined to gas wells.

SOUTHEAST OHIO

Four of the wells completed in Southeast Ohio were in the shallow sands of Medina County, which have proved very profitable since the initial cost is low. In Chatham Township the Oko Oil & Gas Co. completed No. 33 on the Sanford and Watson lease in Section 10 in the Berea grit at 321 feet. It produced 15 bbls. the first day after shot. Closely following, the Oko company completed No. 24 on the same farm at a depth of 340 feet which produced 4 bbls. the first day after shot.

In the same township and section, E. R. Edson & Son Co. added two producers to its string of wells in the county. On the W. A. Shaw farm these operators completed No. 23 at a depth of 329 feet which produced 9 bbls. the first day after shot, and No. 24 at a depth of 356 feet. The second well was shot and made 10 bbls. the first day.

In Holmes County the Lydic Oil & Gas Co. and others drilled a second test on the Ralph Clinage farm in Lot 20, Monroe Township. It went in the Berea at a depth of 676 feet and is a small well showing for about a barrel a day. In Section 2, Franklin Township, Monroe County, S. A. Cobb and others completed a test on the Brady Hawkins farm in the Berea grit at 1,884 feet. After shot it produced 4½ bbls. the first day.

Drilling in Ohio

In Muskingum County the Mehowa Oil & Gas Co. has started drilling on the J. A. Williams farm in Washington Township and Section 11. It has reached 500 feet. In Perry County, W. L. Altier is drilling No. 11 on the Mike Lemity farm in Section 34, Pleasant Township, a shallow sand district. In Reading Township, M. H. Bauman and others are down 2,700 feet on the Elmer VanSickle farm in Section 5. In Hopewell Township the Wehrle Co. is drilling No. 1, formerly a Lime sand gas well, down to the Clinton sand on the C. F. Kreager farm, Lot 53, Hopewell Township. It is now drilling at 2,750 feet. In Fallsbury Township the Emerald Petroleum Co. has rigged up to drill No. 5 on the Sarah G. Little farm, Section 8, a former gas well, to deeper sands.

In Coshocton County the Preston Oil Co. is down 1,000 feet in a second well on the John R. Rine farm, Section 16, Perry Township. In Newcastle Township the same company is drilling on the David S. Snyder farm and has reached 2,500 feet. It will be drilled in the Clinton sand.

In Tuscarawas County the Hopewell Fuel Gas Co. met with misfortune in its shot of its test on the Jess Dayton farm, Lot 21, Washington Township, which was completed natural as a fair producer. In the shot the casing collapsed and there is about 80 feet more to pull. The well, however, will be a fair one. In the same township, and Lot 35, the Gordon Oil Co. is down 1,700 feet in No. 4 on the Ralph Huffman farm. On Lot 32, same township, the Capital Drilling Co. and others have reached 1,800 feet in No. 5 on the Little and Swigert lease. In Guernsey County the Ohio Fuel Gas Co. has started a second test on the L. B. Lafollette farm, Lot 9, Cambridge Township. It is 500 feet deep.

VIRGINIA

Nothing of startling interest happened in the new wildcat area in Virginia with five wells drilling practically covering the much overturned and faulted district. Davis Elkins and others' test on the Smith farm in Buchanan County has reached 4,345 feet. Ed Brehn and others have resumed drilling after casing on the J. M. Arnold farm in Washington County and are down 2,220 feet. In Wise County, Benedum & Trees have reached 850 feet on the J. Kaufman farm, and in Russell County are down 174 feet on the Clinchfield Coal Co. tract. Their test on the Pocohontas Coal Co. tract in Big Creek district, McDowell County, West Virginia, is making fair progress.

WEST VIRGINIA

Two oil producers, one gas well and one dry hole was the total during the week

in West Virginia. Both producers were fair and in Gilmer County. On the waters of Bull Fork of Tanner Creek in DeKalb district, the Patsy Crude Oil Co. completed a second test on the C. W. Fisher farm of 44 acres in the Maxon sand. It started off at close to 40 bbls. a day. In the same district James A. Tierney completed his second test on the F. G. Hardman farm at 1,886 feet, also in the Maxon sand. It is showing for about 10 bbls. a day. In the same district the South Penn Oil Co. cleaned out its No. 4 on the S. M. Hardman farm and increased production from 8 to 12 bbls. a day.

In Ritchie County, on the waters of Lambs Run in Murphy district, the King Knob Oil Co. drilled its test on the Albert Carpenter farm to 2,560 feet through the Berea sand. It was dry in all formations.

The only gas well completed was the test of the Midway City Gas Co. on the O. C. Morrow farm in Guyandotte district, Cabell County. It was completed in the Berea sand at a depth of 3,060 feet and is a fair well slightly over 350,000 feet a day.

Drilling in West Virginia

In Roane County the Henderson Oil Co. is fishing for tools at 1,265 feet on the F. L. Ball farm in Curtis district. On the H. C. Cottle farm, same district, the Big Four Drilling Co. is drilling a test, which is 910 feet deep. In the same district, Snyder Brothers and others have started drilling on the C. and C. Guthrie farm. It is 120 feet deep. In the deep test of the United Fuel Gas Co. on the J. W. Hinzman farm, in which the tools were lost at 9,101 feet, the casing has been started and is being pulled. In Smithfield district Bowers and Jackson have the material on the ground for a test on the Smith and Chewning farm.

In Calhoun County the Crummies Creek Fuel Co. has a second test drilling on the H. L. Harless farm in Lee district and is down 900 feet. In this district work is now light, the only other operation being F. F. McIntosh's No. 4 on the John Riddle farm which is shut down at 500 feet. Mr. McIntosh still holds his location for a test on the Carr Schaffer farm. In Washington district C. B. Lewis and others has a rig standing on the Louie Hamilton farm, and Holly Jarvis and others are still shut down at 1,400 feet on the Hoke Jarvis farm and hold a location for a test on the L. H. Crookshank farm. In Center district, W. H. Bickel has a rig standing on the George D. Starkey farm. In Sheridan district the Conservation Oil & Gas Co. is down 2,140 feet in a second test on the James Kerby farm.

In Boone County the Cambridge Gas Co. is drilling on the C. C. Lewis heirs farm in Scott district and is down 1,600 feet. In Lincoln County the Vernon Gas Co. is drilling at 1,775 feet on the Roy and Hal Adkins farm in Union district. In Cabell County C. C. Wolfe is approaching the sand in his test on J. F. Weatherington farm in Guyandotte district which is 2,956 feet deep, almost on the cap rock. The same operator is down 1,550 feet in No. 4 on the Ben Lomond Land Co. tract, same district.

In Kanawha County work has almost been abandoned. In Union district Ellyson and Wilson are reaming out their test hole on the Virgil C. Tate farm at 2,200 feet for a fresh start to deepen. In Boone County the Pure Oil Co. has two wells drilling; one, No. 57, is close to the sand at 3,075 feet in the Federal Coal Co. tract in Sherman district, and the other on the Williams Coal Co. lease in the same district is at 1,335 feet.

SOUTHWEST PENNSYLVANIA

No completions were recorded in Southwest Pennsylvania during the week. The Union Gasoline & Oil Corp. test on the Mary B. Lindley farm in Amwell Township, Washington County, has not yet been drilled deeper in the sand but a fair amount of oil has been swabbed from the hole, waiting on a reduced oil level to drill it in. In other sections several wells are approaching the sands and are due in shortly.

Work Resumed on Keho Lake Test Near Lethbridge, Alberta, After Shutdown

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, July 16.—Turner Valley pipe line runs for June showed a slight decline, totaling 61,447 bbls. against 65,700 bbls. for May. The detailed figures show deliveries to Imperial Oil, Ltd. of 50,710 bbls. of naphtha, both clear and discolored grades, and 6,275 bbls. of light crude oil, a total of 56,985 bbls., comparing with 48,411 bbls. of naphtha and 7,043 bbls. of light crude, or a total of 55,454 bbls. in May. Regal Oil & Refining Co. deliveries of 4,223 bbls. in June compared with 5,328 bbls. in May, and Bell Refining Co. took 3,116 bbls. in June, as against 4,927 bbls. in May.

The June deliveries bring the total for the six months ending June 30 to 401,012 bbls., comparing with 764,160 bbls. in the same period last year. The field reached its peak in the 1931 period, there being a marked decline in the last six months of that year.

Official Figures for May

Official government figures of crude oil production for May from all Canadian fields show a total of 95,222 bbls., as compared with the April output of 95,585 bbls., and the May, 1931, total of 156,392 bbls.

The government figures show that at the end of May, 1932, oil in storage in the Turner Valley field totaled 24,211 bbls. compared with 37,461 bbls. at the end of April. The Turner Valley gas-oil ratio in May was 139,000 feet of gas per barrel of naphtha compared with 167,000 feet in April. According to the Alberta department of lands and mines, approximately 10,000,000,000 feet of gas was wasted in the Turner Valley Field during May.

Natural gas production from all Canadian wells in May aggregated 1,760,161,000 feet compared with 2,353,619,000 feet in April and 2,036,490,000 feet in May, 1931. The total for all Canadian gas fields in the period ending May 31 was 13,387,598,000 feet compared with 13,417,414,000 feet in the five months of 1931.

South Turner Valley

In the South Turner Valley, a "far-south" test, Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, is likely to be the next producer. It is drilling below 4,272 feet, and is fairly close to Merland Oil Co.'s No. 1. The latter, which has proven a consistently good producer, did not have to drill to the depths of some of the other South Turner Valley wells. Mar-Jon-Freehold's No. 1 is the southernmost active test.

In the Mercury area, Canadian Royalties' No. 1, LSD 9, Section 5-19-2w5, is reported making new hole below 2,505 feet after straightening a crooked hole.

Central Turner Valley

In the Central Turner Valley, New McDougall-Segur Oil Co.'s No. 5, LSD 14, Section 12-20-3w5, has spudded in for a test of the shallower light crude pays above the line. It is resuming at 80 feet after running 18-inch casing. The objective is the McDougall-Segur sand, where previous tests by the company in the same LSD got a good light crude production. This is the first test of the upper sand started since the government order last December prohibited the drilling of new tests into the Madison lime.

McLeod Oil Co.'s No. 4 deep test, LSD 16, Section 1-20-3w5, is drilling below 6,450 feet in an undetermined horizon below the Madison.

Keho Lake Test

In the Keho Lake district, northwest of Lethbridge, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, is reported to have resumed work at 4,800 feet after a shutdown since last fall. The location was visited recently by M. A. Polen, district superintendent of the Continental Oil Co., which has a controlling interest in Hudson's Bay Oil & Gas Co., and it is understood completion of the well is being undertaken under Mr. Polen's general direction.

Hudson's Bay's No. 1 Keho is regarded as one of the most important tests in the Alberta fields. In the previous drilling two oil shows were encountered in the Benton shale at 3,680 and 3,776 feet, with indicated initial production of possibly 62 bbls. of 32 gravity crude. This was shut off and drilling continued, when a show of high-grade crude was struck in the top of the Madison at 4,920 feet. In the effort to put the hole in shape for drilling deeper into the sand, the tools were lost, and after unsuccessful efforts to recover them, the hole was cemented back to 4,800 feet preparatory to sidetracking. It has been standing cemented since last fall.

No. 1 Keho was the most northwesterly of three tests which, almost simultaneously, got shows of crude in the top of the Madison. The test was not drilled into the sand to any depth, but the oil show was regarded as a promising one.

Test for Steveville

In the Steveville district on the Red Deer River east of Calgary, Steveville Oil Co.'s No. 1, LSD 8, Section 4-22-12w4, is reported rigging up. Union Drilling Co. of Calgary has the contract.

Red Coulee Test

On the Montana end of the international Red Coulee structure, Askalta Oils' No. 6, Section 1-37-4w, is reported drilling below 1,200 feet. Askalta's No. 5 is on the line and reported maintaining a good production.

Cotton Belt Well

On the Fisher Creek structure, west of Calgary, Cotton Belt Mines' No. 1, LSD 5, Section 21-21-4w5, is reported drilling below 3,000 feet, with some slight additional indications of oil.

Oil City Test

In the Waterton area, southwestern foothills, Patrick-Spence Oil Syndicate of Calgary is reported to have secured cable tool equipment which is being moved to location for its first test in the old Oil City Field. L. R. Patrick and Miss Theo L. Grewer of Calgary have been active in the preparatory work. Location has been made approximately 50 feet from the old Lineham well in Section 30-1-30w4, which opened the Oil City Field in 1901.

Athadome Drills Deeper

In the Athabaska district, northern Alberta, Athadome Oils' No. 1, N half Section 20-72-24w4, is reported shut down after deepening to 1,640 feet. No important showings have been reported, but it is understood drilling will be continued to test a sand around 1,700 feet.

Montana Border Operations

Regina, Saskatchewan, interests are planning to take an active part in the further development of the Montana end of the international Reserve Dome structure. On the Alberta end the Mayland Southern test in LSD 13, Section 4-1-9w4, got gas where oil was looked for in the Bow Island sand; but in the Whitlash area, a few miles south in Montana, oil has been countered in this horizon. Western Natural Gas' No. 1 Hicks some months ago got a pumping production, claimed to be 21 bbls. a day, from the Bow Island at 1,780 feet; and more recently Radigan's No. 1 Hicks struck oil in two sands at 1,792 and 1,848 feet, with estimated 40-bbl. production. Five other wells are reported rigging. W. D. Craig and associates of Regina are reported to have made location on the T. P. Strode lease, Section 24-37-4e. This is less than a mile southwest of the Crumley well in Section 35-37n-4e, which is reported to have got a 5-bbl. show at 1,415 feet. This test is deepening below 1,450 feet. Active tests in the field include Oien Syndicate's No. 1 Hicks, SE NE Section 26-37-4e, below 500 feet; R. C. White and associate's No. 1 Hicks, NE NE Section 27-37-4e, drilling close to 1,000 feet, and Postewaite Syndicate's No. 1, SW NE Section 26-37-4e, drilling below 1,250 feet.

Test Near Lundbreck

On the Watson structure, in the southern foothills north of Lundbreck, Alberta, Raven Oil's No. 1, Section 20-9-2w5, is reported preparing to resume drilling.

Blood Reserve Prospect

It is reported that Commonwealth Petroleums, Ltd., of Calgary is planning to drill a commercial test on the Blood Indian Reserve near Lethbridge.

Progress at Kelowna

In the Kelowna district, British Columbia, Okanagan Oil & Gas Co.'s No. 1, Section 2-26-Osoyoos Survey, has run casing to 2,170 feet for a water shutoff, preparatory to testing oil and gas production from a lower sand. The heavy water flow previously filled the hole, but considerable seepage oil and indications of gas were noticeable.

Sage Creek Operations

In the Sage Creek district, southeastern British Columbia, Crow's Nest-Glacier Oil Co.'s No. 1 is reported drilling below 3,071 feet, with diamond drill cores showing a more porous sand and increased oil saturation.

Drilling in Ontario

Selected Oil & Natural Gas Syndicate of Toronto is drilling for gas about 3 miles from Dunnville, in Haldimand County, where it holds leases on 1,000 acres. Two small gassers have already been brought in, and No. 3 is drilling. Gas flows are encountered in this area at about 800 feet, and it is planned to drill a series of 20 tests during the present year, the production being taken by the Dominion Natural Gas Co.

In the Petrolia Field, Lambton County, W. J. Rawson of Petrolia has purchased a 180-acre oil farm east of the town from Mrs. James Kerr of Sarnia. The property includes about 50 producing wells. Mr. Rawson is well known as a driller in foreign fields.

Central West Fields

(Continued from Preceding Page)

ship, Knox County, is a dry hole. Glengarry Oil Co. is drilling on the Emmitt Blann farm in Location 261.

Crawford County

In Crawford County, William T. Pfeiffer and others' test on the Arthur Beasley farm, SE Section 32, Sterling Township, was dry at 2,000 feet. This test had a bad fishing job at 550 feet, which delayed its completions for a long period.

In Fountain County the Coast-Smith

Oil Co.'s test on the Snider-Mason farm, SW Section 2, Cain Township, is reported dry at 1,740 feet.

In Laporte County, V. S. Hollingsworth and others are drilling on the W. and C. Drollinger farm in Willis Township, north of the dry hole recently drilled on the John Siddles farm by H. J. Hauck and others, which was dry at 1,515 feet, but had a gas showing at 365 feet. The Siddles farm test struck top of Trenton lime at 1,400 feet and a showing of oil at 1,450 feet.

In the old Trenton Rock Field in northeastern Indiana, N. E. Masters and others are drilling on the William O. Bailey farm, NE Section 25, Wayne Township, Jay County.

In Southwestern Indiana the Knox Engineering Co.'s test in the northeast corner of the Robert L. Simms farm, Section 32, Columbia Township, Gibson County, is reported with 5,000,000 feet of gas at 1,502 feet, the Brown sand. The Wabash Public Service Corp. is drilling on the J. N. Malone farm, NW Section 23, same township. Big Four Oil & Gas Co. is drilling No. 1 Ethel Kell farm, NW Section 18, same township.

H. H. Risher drilled a dry hole in the northeast corner of the James M. Thomas farm, SW Section 19, Washington Township, Pike County. Claude E. Noble is drilling on the John Arnold farm, SE Section 17, same township.

Dr. C. C. Talliaferro, Jr., is drilling on the Henry Kohle farm, NW Section 28, Greer Township, Warrick County.

Indiana Utilities Corp. is drilling on the William Longbottom farm, SW Section 10, Webster Township, Harrison County.

KENTUCKY

The Western Kentucky Field shows an even dozen completions of which five were producers with a combined initial production of 175 bbls, and seven were dry holes. In Ohio County, S. R. Nigh and others' No. 16 well, 600 feet from the south line and 200 feet from the west line of the A. P. Kelley 340 acres, 2½ miles south of Deanfield, is credited with an initial production of 25 bbls. at around 750 feet. S. H. Russell and others' No. 1 in the southeast corner of the Arthur Whitehouns farm, 3 miles south of Deanfield, was dry at a total depth of 825 feet.

In Daviess County, Mida McMahan's No. 5 well, 150 feet from the north line and 800 feet from the east line of the Robert Jones farm, in the Jones Pool, produced 40 bbls. initial at 627 feet. Mecca Oil Co.'s No. 1 Martin farm proved a dry hole. S. M. Sherman's No. 4 well, 1,000 feet from the south line and 250 feet from the west line of the Will Salmon farm, in the Red Hill district, was dry, as was his No. 4 on the West Jones farm in the same area.

In McLean County, Thelma M. Engle and others in the northeast corner of the L. C. Atherton farm, in the Barretts Hill Pool, is reported good for 40 bbls. the first 24 hours. Creek Drilling Co. reports three dry holes, one being a test 1,000 feet from the north and west lines of the Morris farm; No. 2 on the Smith farm, and No. 2 on the Glasgow farm, all in the Barretts Hill Pool.

In Hart County, Clark and others are reported to have a 25-bbl. initial producer in No. 1 on the Tommy Johns farm, southwest of Logsdon, and Archie Compton's No. 2 Robertson farm is reported at 35 bbls. initial. Oscar Benton's second test on the John Craddock farm in the Cub Run area is reported a light producer.

While Western Kentucky has been the active developing territory of Kentucky for the past few years, the indications are that the extreme eastern section is in for a large development, according to reports, due to a large extent to the hunt for gas, as there are four large companies now operating in several of the eastern counties of the State: the United Carbon Co., Kentucky-West Virginia Gas Co., Piney Oil & Gas Co., subsidiary of the Columbia Carbon Co., and the Warfield Gas Co., subsidiary of the Columbia Gas & Electric Co. It is through this area that the Columbia Gas & Electric Co.'s 20-inch gas line runs into Washington.

Total runs made from wells served by the Illinois Pipe Line in Western Kentucky during June was 125,671.39 bbls.

NEW RUSSIAN FIELD REPORTED IN EMBA AREA

The Economic Review of the Soviet Union, published by the Amtorg Trading Corp., reports important oil discoveries in the mountain region of eastern Russia. The discoveries were made through two wells at Sterlitamak and the crude "has a high gasoline content and a specific gravity of .905. There is sufficient geological data," says the Review, "to indicate that the new deposits may be a continuation of Emba Field, over 2,000 kilometers to the south. The Emba deposits amount probably to more than 2,800,000,000 bbls. and the area of these fields reaches a total of 150,000 square kilometers. This would make the Emba region one of the richest in the world, equal in importance to the Baku deposits. At present preparatory work is being rushed to begin production." According to the Review, Russia plans to use the new fields for home consumption.

MANHATTAN, KANS., RATE

TOPEKA, Kans., July 18.—The Manhattan Chamber of Commerce has filed complaints before the Kansas Public Service Commission against the rates charged for natural gas service in that city by the Kansas Power & Light Co. and the United Power & Light Co. The Kansas Power & Light Co. owns the pipe line company which transports the gas; the United is the distributing company at Manhattan.

The present rate is $1 for the first 1,000 feet and 50 cents a thousand for the next 19,000 feet, with graduated reductions as the consumption is increased.

PERRY ORDER UPHELD

The Oklahoma Corporation Commission has refused to set aside its order reducing natural gas rates at Perry from 60 to 47 cents a thousand feet. Arguments on a further motion of Apache Gas Co. counsel to vacate the order will be heard July 30.

Wildcat Operations in Southwest Texas

(Continued from Page 44)

Jones & Volts' No. 1 Bonkowsky, 150 ft. to N and W lines of William McMenenes Sur., 12 miles E of San Antonio ..... T.D. 907 ft.; standing.
Schneider, Rees et al's No. 2 Claussen, 12 miles NE of San Antonio ..... T.D. 1,330 ft.; S.D.
C. J. Webster Oil & Gas Co.'s No. 1 San Antonio Suburban Irrigated Farms, 200 ft. from S and W lines of Farm Lot 2, Blk. 49, in SW Bexar County ..... T.D. 200 ft.; set 10-in.

BROOKS COUNTY

Ed East's No. 1 A. Garcia, 600 ft. from N and E lines of 2,163-ac. tract in SW part of county ..... T.D. 1,380 ft.; drlg.
M. P. Evans' No. 1 J. M. Martinez, 300 ft. from N and W lines of Blk. 11, Sec. 6, La Encantada Sur. ..... T.D. 1,086 ft.; drlg.

CALDWELL COUNTY

Kistler, Stivers & Hendrick's No. 1 D. Carter, 400 ft. from NW line of Sur., 300 ft. NE of Creek in L. Allen Sur. ..... T.D. 1,485 ft.; dropped till work starts.

COLORADO COUNTY

Cayle-Concord Oil Co.'s No. 1 Stewart Nelson in I.&G.N. Sur. No. 43 ..... T.D. 4,021-25 ft.; drlg. in.
V. F. Neuhaus et al's No. 1 Mattyles C. Barnett, 330 ft. from W line, 330 ft. from S line of Subd. 26 of Obid K. Winn Sur. ..... T.D. 2,650 ft.; drlg.

DE WITT COUNTY

J. F. Richardson's No. 1 Virginia Taylor, 330 ft. from SE line of tract, 330 ft. NE of Minnehuilla Creek .... T.D. 2,400 ft.; drlg.
The Texas Co.'s No. 1 John McCrabb, 4,000 ft. from SW line, 1,425 ft. from SE line of 794-ac. lease in James Quinn Sur. ..... T.D. 5,100 ft.; drlg.

DUVAL COUNTY

R. F. Duggan & J. D. Clair's Smith No. 1 Sutherland, 150 ft. from S and E lines of NE NE of Sur. 188. .... T.D. 1,826 ft.; abnd.
Frank Gravis' No. 2 Schallert in Sur. 255 (Palangana salt dome) ..... T.D. 253 ft.; drlg.
Clark & Cowden's No. 1 Sutherland, 450 ft. from W line, 150 ft. from S line of Sur. No. 3 ..... T.D. 2,810 ft.; drlg.
O. W. Killam's No. 1 Peters, 150 ft. from E line, 450 ft. from N line of SE of Sur. No. 1 ..... T.D. 2,725 ft.; standing.
Plymouth Oil Co.'s No. 1 Parr, 6,250 ft. from W line, 1,925 ft. from S line of San Andres, Garcia grant ... T.D. 3,665 ft.; drlg.

GUADALUPE COUNTY

John F. Camp's No. 1 Delaney, 2,572 ft. from S line, 1,515 ft. from W line of Delaney 400-acre tract in Jesus Cantu Sur. ..... T.D. 575 ft.; drlg.

GOLIAD COUNTY

Hoffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,300 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.
Humble Oil & Ref. Co.'s No. 1 Fromme, 450 ft. from S line, 150 ft. from W line of lease on Geo. Kersey Sur.. T.D. 5,020 ft.; drlg.
Plymouth Oil Co.'s No. 2 Parks, 400 ft. S of No. 1 Parks in Solomon Parks Sur. ..... T.D. 5,137 ft.; set csg., waiting on cement.
Neal et al's No. 1 J. M. Pettus, 10,700 ft. to S line, 2,500 ft. to E line of Pedro Trevino Sur. ..... T.D. 5,070 ft.; contract depth.

GONZALES COUNTY

Crowder Oil Co.'s No. 1 Preston, 1,000 ft. from W line, 2,000 ft. from N line of W. W. Pace Sur. ..... T.D. 200 ft.; standing.
Edmiston & Kirby Petroleum Co.'s No. 1 J. W. Ward, Jr., 200 ft. from N and W lines of tract in Dan McKay Sur. ..... T.D. 1,529 ft.; S.D
Johnson & Mattock's No. 1 J. James, 12 miles NE of Gonzales city, 900 varas from E line, 300 ft. from S line of tract in M. A. Williams Sur. ..... T.D. 3,000 ft.; pulled in derrick.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft.; shut down.
San Roman Oil Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... T.D. 675 ft.; S.D.
Dayle L. Smith's No. 3 Daskam, SW part of county..... T.D. 1,726 ft.; S.D.

JIM HOGG COUNTY

Clark & Cowden's No. 1 E. Vela, Share 1 El Peyote grant. Rigging up.
D. C. DeWitt's No. 1 Gomez, 1,1.0 ft. from N line, 150 ft. from W line of Sur. No. 12, SW part of county .. T.D. 1,457 ft.; to drill deeper.
Randado Syndicate's No. 1 Randado townsite, Sur. No. 148 ..... T.D. 2,503 ft.; standing.

JIM WELLS COUNTY

Catlett & O'Neal's No. 2 H. D. Miller, 2,200 ft. N and 33 deg. E of most southwesterly cor. of ranch ..... Location.
F. A. Lain's No. 1 Vernon Porter, 800 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 ..... Rebuilding derrick.
Mid-States Oil & Gas Co.'s No. 1 Wade, C Blk. 2, Wade ranch, NE part of county ..... Location.
S. J. Sloane's No. 1 W. Wade, 150 ft. SW of cen. of NE line of Lot 6, Blk. C of Wade ranch, C. Blanca Sur... T.D. 3,200 ft.; at contract depth.

KARNES COUNTY

A. E. Edmiston's No. 1 O. L. Cochran, 150 ft. from S line, 500 ft. from E line of farm in D. B. McConnell Sur. ..... T.D. 1,820 ft.; standing.
Ike Howeth et al's No. 1 D. Pargmann in Victor Blanco Sur., 660 ft. NE along county road from NE cor. of F. Heer tract, thence 50 ft. NW at right angles... Rigging up.
Nichols Oil Co.'s No. 1 Newberry, 210 ft. S, 60 de. E from Fort Bend Oil Co.'s No. 1 Newberry ..... T.D. 3,300 ft.; S.D.
Pickett et al's No. 1 D. E. Lyons in Victor Blanco Sur.... T.D. 3,422 ft.; drlg sandy shale.

KERR COUNTY

Eastland Oil Co.'s No. 1 Love, 600 ft. E of No. 1 Love in J. Martinez Sur. No. 1,594 ..... T.D. 1,900 ft.; S.D. for fuel.
Evans & Gant's No. 1 E. Young, A. E. Burg Sur. 28.... T.D. 1,312 ft.; standing.
Verde O. & G. Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,925, Hamilton Sur., 4 miles from Center Point; T.D. 200 ft; carried to this depth and abandoned as Herber Oil Co.'s No. 1 J. D. Witt ..... T D. 110 ft.; standing.

KLEBERG COUNTY

H. Carter et al's No. 1 R. H. Simmons, in Sec. 7, King Sur. No. 3 ..... T.D. 3,205 ft.; dropped till work resumes.

LA SALLE COUNTY

Frank Clark's No. 1 Coleman, 200 ft. from S and E lines of Blk. 15, Sur. No. 514 ..... T.D. 40 ft.; dropped till work resumes.

LIVE OAK COUNTY

J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. 37 ..... T.D. 592 ft.; S.D. for water.

LEE COUNTY

Paton Bros.' No. 1-A Turner, 24 ft. from No. 1 Turner... T.D. 2,940 ft.; drlg.

MEDINA COUNTY

James Earle Greenlee's No. 1 J. P. Nixon, 150 ft. S of C of N line of S half of NW of M. Derungs Sur. No. 528 ..... Spudded in.
Robertson Drilling Co.'s No. 1 Little, 2,350 ft. from N line, 1,500 ft. from E line of E. B. Rutledge Sur., southern part of county ..... T.D. 2,100 ft.; drlg.

MILAM COUNTY

M. W. Elser's No. 1 Citizen's Nat. Bank of Waco, 1,325 ft. from S line, 625 ft. from E and W lines of tract in Wm. Punchard Sur. ..... Moving in rig.
Keyser & Nichols' No. 2 Irwin, 65 ft. from No. 1, Levi Taylor Sur. ..... Set csg. 590 ft.
Keyser & Roberts' No. 3 Ward, 125 ft. NE of No. 2 Ward, in Levi Taylor Sur. ..... T.D. 1,100 ft.; S.D.
Michalk & Clark's No. 1 Johnson, 60 ft. S of No. 1 Johnson on 100-ac. lease in Juan Jose Acosta Sur. .. T.D. 1,800 ft.; fishing.

SAN PATRICIO COUNTY

John F. Camp's No. 1 W. W. Bennett, C SW of Sec. 3, Geo. H. Paul Subd., J. J. Welder ranch ..... T.D. 2,286 ft.; in sand.

STARR COUNTY

Coastal O. & G. Co.'s No. 1 Kelsey-Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86.. T.D. 800 ft.; set csg.
W. T. Gilman & Travelers Oil Co.'s No. 1 C. Ramos, 1,170 ft. from SW line, 1,470 ft. from NW lines of Sur. No. 150 ..... Spudded in and S.D.
H. C. Carter's No. 1 Gonzales, 990 ft. from N line, 1,150 ft. from E line of Share 62-B of Subd. of Porcions 70 and 71, Jurisdiction Mier ..... T.D. 340 ft.; standing.
Frank LaBorde's No. 1 Juan Marroquin, 1,250 ft. from E line, 1,325 ft. from S line of Share 21 of W two-thirds of Porcion 75 ..... T.D. 620 ft.; standing
Sinclair & Rutherford's No. 1 J. T. Canales, 150 ft. from S and W lines of Share 69 of W half of Porcion 79, Camargo ..... Spudded in and S.D.
Smith et al's No. 1 Lopez, 200 ft. from E line, 1,000 ft. from S line of Blk. 20, Share 65 of Porcion 80, Jurisdiction Camargo ..... T.D. 190 ft.; standing.
George Stobaugh's No. 1 Seabury et al, 150 ft. from S and W lines of Porcion 107 ..... T.D. 230 ft.; set surface csg.
Stryalls Oil Corp.'s No. 1 M. E. Salinas, 165 ft. from N and W lines of lease in Porcion 80, Share 38 .... T.D. 2,384 ft.; drlg.
Stryals Oil Corp.'s No. 1 H. Garza, 500 ft. from E line, 5,280 ft. from N line of Share 26, Partition of Porcions 67-72 ..... Location.

Strayhorn Oil Co.'s No. 1 Caffarelli, Porcion 10, 150 ft. from N and E lines of Share 19-A ..... T.D. 360 ft.; standing
Stryalls No. Corp.'s No. 1 Margo, 150 ft. from N and E lines of Share 27 of Subd. of Porciones 80 and 81, Jurisdiction of Camargo ..... T.D. 210 ft.; standing.
E. L. Williams' No. 1 L. G. Madrigal, 150 ft. from N and W lines of Share 5-A of Porcion 72 of Jurisdiction of Mier ..... T.D. 232 ft.; drlg.

TRAVIS COUNTY

C. R. Franklin et al's No. 1 J. Wilson, 160 ft. from N and W lines of farm in A. Alexander Sur. ..... T.D. 1,210 ft.; S.D.
Fritz Fuchs' No. 1 Swedish, 2,350 ft. from NE line, 750 ft. from NW line of Thomas Smith Sur. ..... T.D. 900 ft.; S.D.
Ray & Orth's No. 1 Lundgren, 550 ft. from N line, 150 ft. from W line of 133-ac. tr. in L. Kimbro Sur. .... T.D. 550 ft.; fishing.

WEBB COUNTY

Blair & Livingston's No. 1 J. M. Garcia, 150 ft. from N and E lines of NE NW of Sur. 1,100 ..... Location.
Newton Drilling Co.'s No. 1 A. Garcia, 2,550 ft. from S line, 2,340 ft. from W line of Sur. No. 52, 10 miles N of Carolina Texas Field ..... Spudded in.
Norden & Morris' No. 2 Gates, 340 ft. from W line, 400 ft. from S line of Blk. 5, Sur. No. 19 ..... Rigging up.
Thompkins et al's No. 1 Ortiz, 200 ft. from E line, 2,000 ft. from N line of Sur. No. 1,808 ..... T.D. 850 ft.; standing.

WILLIAMSON COUNTY

McLean et al's No. 2 R. C. Miller, 800 ft. to S line, 100 ft. to W line of tr. in B. Manlove Sur. ..... T.D. 400 ft.; S.D.
McNeill & Matthews' No. 1 Bachmayer, 300 ft. from E line, 150 ft. from S line of C. C. Browning Sur. ... T.D. 2,000 ft.; standing.
G. B. Peterman's No. 1 Guentzel, 300 ft. from SE line, 867 ft. from SW line of tract in H. Cooks Sur. ..... T.D. 2,565 ft.; abnd.

WILSON COUNTY

A. M. Blume's No. 1-A Nicholson, 105 ft. N, 27 deg. E of No. 1 Johnson ..... Moving in rig.

ZAPATA COUNTY

Ballard & Mercer's No. 1 Flores, 500 ft. from NE line, 500 ft. from SE line of Blk. 27, Porcion 37 ..... T.D. 2,505 ft.; standing.
Joe Cullinan's No. 1 E. Gutierrez, 1,992 ft. from NE line, 2,303 ft. from SE line of Charco de la India grant ..... T.D. 1,495 ft.; drlg.
Donohoo et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700 ac. of Share A, Charco Redondo grant ..... Set 1 joint of surface casing.
Hunt & Polk's No. 1 H. Ramirez, 7,075 ft. N of S cor. and 2,918 ft. from W line of Share A of Villa grant.. T.D. 820 ft.; standing
T. J. Murray's No. 2 Haynes, 3,000 ft. from NE line, 7,091 ft. from NW line of Haynes Pasture, Comitas grant ..... T.D. 500 ft.; drlg.
F. J. Ossenbeck's No. 1 Adelfonso Rameriz, 600 ft. W of Zapata-Roma highway, 150 ft. from SE line of Porcion 18 ..... Location.
H. L. Sargent et al's No. 1 Antonio Gutierrez heirs, 922 ft from W line, 472 ft. from S line of Tract 2, Blk. 5, Nixon Subd., Porcion 10, San Ignacio Borrego grant ..... T.D. 920 ft.; drlg.
F. J. Searight's No. 1-F. Munoz, 660 ft. from N line and on line between Blocks 81 and 82 of Porcion 18 ..... Spudded in.

Southwest Texas Proven Areas

Week Ending July 16

NORMANNA POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 2 Hicks ..... Moving in.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 3 J. H. Gembler, 180 ft. from N and E lines of tr. in A. Manachaca Sur. 51.. C.D. 1,216 ft.; drlg.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 750 ft. from E line of tract in J. Montez Sur. ..... T.D. 482 ft.; waiting for rig.
F. H. Eckert & Son's No. 1 Louis Brehm, W offset to No. 3 John J. Brehm ..... Location.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodriges Sur. ..... T.D. 2,223 ft.; drlg.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 1-B Walker, 320 ft. from NW line, 150 ft. from NE line of Walker lease, Solomon Seal Sur.. T.D. 2,460 ft.; drlg.
Cole et al's No. 1 Pierce, 400 ft. from NE line, 445 ft. from NW line of Pierce 100-ac. tract in Solomon Seal Sur. ..... Derrick on ground.
Hadley et al's No. 1 Nugent ..... T.D. 2,100 ft.; drlg.
Smilock Oil Co.'s No. 1 Dunlap, offsetting Bob Rose's No. 1 Pierce, in Solomon Seal Sur ..... T.D. 2,400 ft.; preparing to shoot.
Trinity Drillers, Inc.'s No. 1 Dunlap, N offset to Bob Rose's No. 1 Pierce in Solomon Seal Sur. ..... T.D. 2,400 ft.; abnd.

WEBSTER POOL—CALDWELL COUNTY

C. J. Webster Oil & Gas Co.'s No. 1 C. F. Robertson, 700 ft. from E line, 200 ft. from N line of 100-ac. tract, John A. Neill Sur. ..... Derrick.
C. J. Webster Oil & Gas Co.'s No. 1-A McCrory, 75 ft. NW of No. 1 McCrory in John A. Neill Sur. ..... T.D. 2,053 ft.; set csg.; after drill stem test flowed oil

COLE POOL—DUVAL COUNTY

Cole Petroleum Co.'s No. 76 Benavides, 1,010 ft. from NE lines, 150 ft. from NW lines of Blk. 3, Sec. 19, Cole Subd. of Mariano Arispe grant ..... T.D. 1,753 ft.; bailing.

GOVERNMENT WELLS—DUVAL COUNTY

George Parr's No. 1 Benavides School, 150 ft. from S and W lines of Sur. No. 44 ..... Location.
San Diego Oil Corp.'s No. 1 Riley, 150 ft. from N and W lines of W half of NW of Sur. 46 ..... Location.
The Texas Company's No. 1 Riggs, 150 ft. from N and W lines of E half of NW of Sur. No. 46 ..... Location.
The Texas Company's No. 2 Riggs, 150 ft. from N and E lines of E half of NW of Sur. No. 46 ..... Location.
Buchanan & Terrell's No. 1 R. T. Ellison, 150 ft. from S and E lines of NE NW Sur. 44 ..... T.D. 2,301 ft.; set csg.
Buchanan & Terrell's No. 2 R. T. Ellison, 510 ft. from E line, 150 ft. from S line of NE NW of Sur. 44 ..... Location.
R. F. Byrd's No. 1 R. T. Wright, 150 ft. from N and W lines of Sur. 101 ..... T.D. 2,307 ft.; gasser spraying oil.
H. H. Coffield's No. 2 Wendt, 150 ft. from N and E lines of SE NE, Sur. No. 43 ..... Rigging up.
Humble Oil & Refining Co.'s No. 4 White, 2,310 ft. from S line, 1,320 ft. from W line of Sur. 58 ..... T.D. 800 ft.; drlg.
Magnolia Petroleum Co.'s No. 2 J. T. Johnson, 150 ft. from S and W lines of NE of Sur. No. 44 ..... T.D. 1,435 ft.; drlg.
Magnolia Petroleum Co.'s No. 2 Wendt, 150 ft. from S and W lines of NW of Sur. No. 44 ..... T.D. 2,302 ft.; set csg.
Petroleum Finance Corp.'s No. 1 C. W. Hahl, 150 ft. from N and W lines of SW Sur. No. 46 ..... T.D. 1,250 ft.; drlg.
Seacord & Putnam's No. 1 Johnson, 150 ft. from S and E lines of NW NW of Sur. 44 ..... T.D. 1,470 ft.; drlg.
Southwest Drilling Co.'s No. 2 Wendt, 150 ft. from N and E lines of SE of Sur. 43 ..... Location.
The Texas Company's No. 1 Freer, 150 ft. from N and E lines of Sur. No. 45 ..... Rigging up.
Whisenant, Trenchard & French Oil Corp.'s No. 1 C. W. Hahl, 330 ft. from S line, 660 ft. from E line of SW SW of Sur. 44 ..... Location.
Windsor Oil Co.'s No. 1 L. L. Cummings, 450 ft. from S line, 150 ft. from W line of E half of NW of Sur. 44 ..... T.D. 2,296 ft.; flowing 40 bbls. per hour.

SARNOSA FIELD—DUVAL COUNTY

Edwin M. Jones' No. 1 J. F. Williams, 2,156 ft. from NE line, 150 ft. from NW line of Sur. No. 131 ..... Location.
Smith & Capps' No. 2 "A" Duval County Ranch Co., 200 ft. from SE and SW lines of W half of Sur. No. 574 ..... Location.
The Texas Company's No. 1 R. L. Brown, 150 ft. from SE and SW lines of Sur. No. 574 ..... Location.
The Texas Company's No. 1 Ruiz, 150 ft. from NE and SE lines of Sur. No. 127 ..... Rigging up.
John F. Camp's No. 2 Well, 1,200 ft. N, 18 deg. W of No. 1 Well in Sur. No. 570 ..... Set surface csg.
Hynes & Nessly's No. 1 Well, 2,360 ft. from NE line, 200 ft. from NW line of Sur. 130 ..... T.D. 2,398 ft.; flowing 300 bbls.
E. R. Thomas' No. 1 Duval County Ranch Co., 150 ft. from NW and NE lines of E of S of Sur. 576 ..... Location.
Smith & Capps' No. 3 Duval County Ranch Co., 2,210 ft. from NW line, 150 ft. from NE line of Sur. 576... T.D. 2,330 ft.; set csg.
Smith & Capps' No. 3 Duval County Ranch Co., 200 ft. from NE and SE lines of N of Sur. 576 ..... T.D. 2,335 ft.; set csg.

SLICK POOL—GOLIAD COUNTY

T. B. Slick estate's No. 2 Allen, 1,660 ft. from NE line, 330 ft. from NW line of tr. in Obid Marshall Sur. . T.D. 4,243 ft.; recemented csg.; drlg. plugs.

DARST CREEK—GUADALUPE COUNTY

Humble Oil & Ref. Co.'s No. 2 Dan Denman ..... Rigging up.

SAL-MAR FIELD—GUADALUPE COUNTY

A. W. Wormser's No. 1 Pfullman, 450 ft. W of Sal-Mar Oil Co.'s No. 1 Zunker in L. Bollinger Sur. ..... T.D. 1,200 ft.; drlg.

LOBO FIELD—LIVE OAK COUNTY

John F. Camp et al's No. 1 Reagan, 3,100 ft. from E line, 21,200 ft. from N line of L. F. Reagan tract .... T.D. 1,875 ft.; drlg.

JACOB POOL McMULLEN COUNTY

Jacob, Buzzini & Pickett's No. 1-B Jacob, Sec. 15 G.H.&H. Ry. Sur. ..... T.D. 1,065 ft.; bailing.
Longhorn Oil Co. and American Gas Co.'s No. 1 Lark, 2,790 ft. from N line, 1,150 ft. from W line of Lark tract, E. W. B. Scrugham Sur. ..... Moving in.

WENTZ POOL—McMULLEN COUNTY

V. G. Schimmel's No. 1 Two Rivers Ranch, SE cor. of Sec. 59, 5 miles S of Wentz ..... T.D. 830 ft.; drlg.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1 Adams, 420 ft. from S line, 2,000 ft. from W line of F. Mumme Sur. ..... Location.

SAXET FIELD—NUECES COUNTY

Gulf Coast Oil Co.'s No. 2 Perkins & Gasse, 650 ft. from N line, 990 ft. from E line of Sec. 26 of Shepherd farm lots ..... Derrick.
Gulf Coast Oil Co.'s No. 1 Frank Bliss, 330 ft. from S and E lines of N half of 225-ac. tract ..... Location.
Kepley et al's No. 2 Roark, 150 ft. from S and W lines of Roark lease ..... Derrick.
McCarthy-Rogers-Nix et al's No. 1 Isencee, 151 ft. from W line, 172 ft. from N line of Blk. 12 of Shepherd farm lots ..... Rigging up.
Saxet Oil Co.'s No. 2 Walton, 200 ft. from S line, 629 ft. from W line, N offset to Sun-Kepley Donegan ..... T.D. 450 ft.; set surface csg.

ARANSAS POOL—SAN PATRICIO COUNTY

Atlantic Oil Prod. Co.'s No. 4 Welder, 1,900 ft. S, 30 deg. E of No. 3 Welder ..... T.D. 4,700 ft.; drlg.

LOS OLMOS POOL—STARR COUNTY

V. V. Combs' No. 1 Kelsey Bass, 150 ft. from N and W lines of NE NE, Sec. 6, Porcions 75, 76 and 77 ..... Location.
Hooks & Weaver's No. 8 Kelsey Bass, 450 ft. from S and W lines of E 30 acres of NE SW Section 6, Porcions 75, 76 and 77 ..... TD. 310 ft.; drlg.
J. P. Moore and C. B. Van Matre's No. 1 Seabury et al, 150 ft. from E line, 750 ft. from S line of Share 5, Subd. of W part of Porcion 75 ..... Location.
Griffin et al's No. 1 Bass, 150 ft. from N and W lines of NW NW Sur. 11, Subd. Porciones 75, 76, 77 ..... T.D. 1,400 ft.; standing.
Los Olmos Oil & Gas Co.'s No. 16 Kelsey Bass, 300 ft. from N line, 450 ft. from E line of NE NW of Sec. 7, of Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... Location.
Los Olmos Oil & Gas Co.'s No. 17 Kelsey-Bass, 150 ft. from S and W lines, NW SE of Sec. 7, Subd. of Porciones 75, 76, 77, Jurisdiction Camargo ..... T.D. 465 ft.; in sand.
Los Olmos Oil & Gas Co.'s No. 20 Kelsey Bass, 250 ft. from S line, 600 ft. from E line of SE of SW of Sec. 6, Porciones 75, 76, 77 ..... Spudded in.
Los Olmos Oil & Gas Co.'s No. 21 Kelsey Bass 750 ft. from N line, 650 ft. from W line of NE of NW of Sec. 7, Porciones 75, 76, 77 ..... T.D. 435 ft.; drlg.
Los Olmos Oil & Gas Co.'s No. 22 Kelsey Bass, 450 ft. from S line, 150 ft. from W line of NW SE of Sec. 7, Porciones 75, 76 and 77 ..... Location.
Quien Sabe Oil Co.'s No. 1 Kelsey Bass, 300 ft. from N line, 750 ft. from W line of NE SW Section 8, Porciones 75, 76, 77 ..... Dropped till work starts.
Sinclair & Rutherford's No. 1 Kelsey Bass, 150 ft. from S and W lines of SE NW Sec. 6, Subd. of Porcions 75, 76, 77 ..... Spudded in and S.D.

RIO GRANDE CITY POOL—STARR COUNTY

Echols et al's No. 1 Doyno, 450 ft. from N line, 160 ft. from W line of Lot 6, Share 77-A, Porcion 81 ..... Spudded in.
Coastal Oil & Gas Co.'s No. 1 Olivarez, 150 ft. from NE and SE lines of easternmost corner of Share 35, Porcion 80, Camargo ..... Derrick.
E. O. Connor's No. 1 Goodrich, 150 ft. from N and E lines of Tract 5, Lot 5, Porcion 81 ..... Drlg. 300 ft.
Gulf Coast Oil Co.'s No. 1 Frank Doyno, 150 ft. N of C of S line of Blk. 4, Share 77-A, Por. 81, Camargo.. TD. 1,461 ft.; installing pump.
T. J. Heard's No. 1 Block, 150 ft. from S and E lines of Lot 4, Tract 28-A of Por. 80, Jurisdiction Camargo... T.D. 2,000 ft.; standing.
Heard & Swift's No. 1 Frank Doyno, 450 ft. from E line, 150 ft. from S line of Blk. 8, Share 77-A of Porciones 80 and 81 ..... T.D. 1,437 ft.; set csg.
R. E. Johnson's No. 1 P. H. de Izaguirre, 150 ft. from E line, 450 ft. from N line of Share 36-A, Porciones 80-81, Jurisdiction of Camargo ..... Location.
King Pin Oil Co.'s No. 1 T. C. Lewis, 207 ft. from E line, 111 ft. from S line of Share 22, Porcion 80, Jurisdiction of Camargo ..... Derrick.
Sioux Oil Co.'s No. 3 Goodrich, 150 ft. from N line, 1,150 ft. from W line of Blk. 1, Tract 5, Porcions 80-81, Jurisdiction of Camargo ..... T.D. 1,444 ft.; 75 bbls.
Tarver & Nance's No. 1 Seabury et al, 400 ft. from W line, 150 ft. from N line of Tract 21, in Porcion 79, Camargo ..... T.D. 2,230 ft.; drlg.
Traylor-Munday-Flowers' No. 1 Frank Doyno, 150 ft. from S and W lines of Blk. 7, Share 76-A, Porcions 80 and 81 ..... T.D. 1,060 ft.; drlg.
Traylor et al's No. 1 Laborde, 150 ft. from S and W lines of W 20 acres of Lot 6, Tract 5, Porcion 81 .... T.D. 1,100 ft.; drlg.

ROSENBERG POOL—WEBB COUNTY

Montex Oil Co.'s No. 1 M. Vela, 479 ft. from N line, 490 ft. from W line of Blk. 4, Sur. No. 267 ..... Derrick.
Phillips Rosenberg's No. 3 Laurel, 150 ft. from E line, 1,149 ft. from N line of Lot 10, Sur. No. 271 ..... T.D. 2,243 ft.; set csg.

CHAPMAN POOL—WILLIAMSON COUNTY

Westbrook Oil Co.'s No. 9-B Lawrence, 340 ft. NE of No. 8-B and 150 ft. from SE line of 27-ac. tr. in S. Miller Sur. ..... Location.

ESCOBAS POOL—ZAPATA COUNTY

Allied Gas Co.'s No. 32 Gutierrez, 1,374 ft. from NE line, 1,140 ft. from SE line of Share 4, Comitas grant ..... T.D. 1,470 ft.; comp. 75 bbls.

F. M. Blair & Son's No. 1 Montemayor, 450 ft. from N line, 150 ft. from E line of Blk. 1, Sur. 63 ..... Reinstated; T.D. 1,642 ft.; coring.
Shankle and Newton Oil Co.'s No. 18 Trevino, 338 ft. from SE line, 200 ft. from SW line of Blk. 14, Sur. 65 ..... Spudded in.
McGinley Oil Corp., No. 1 G. T. Montemayor, 150 ft. from N and W lines of Blk. 6, Sur. 64 ..... Location.
McGinley Corp.'s No. 3 Bustamente, 1,065 ft. from NE line, 150 ft. from NW line of 105.7-acre tract in Share 35, Comitas grant ..... T.D. 1,460 ft.; abnd.
S. R. C. Oil Co.'s No. 12-D Montemayor, 65 ft. from W line, 120 ft. from S line of Blk. 10, Sur. 64 ..... T.D. 1,478 ft.; 75 bbls.
Trevino Oil Corp.'s No. 2-B Trevino, 150 ft. from NW line, 210 ft. from W line of Blk. 14, Sur. 412 ..... T.D. 1,214 ft.; 60 bbls.

CHARCO REDONDO POOL—ZAPATA COUNTY

L. G. Smith's No. 1 J. M. Martines, 350 ft. from NE and SE lines of Blk. 18, Share B, Duke's Subd. of Charco Redondo grant ..... Location.
Windsor Oil Co.'s No. 1 Martines, in NE of Blk. 18, of W. R. Duke Subd., Charco Redondo grant ..... T.D. 585 ft.; drlg.

MARTINEZ FIELD—ZAPATA COUNTY

Newton Drilling Co.'s No. 2 Garza, 225 ft. from N line, 1,000 ft. from W line of Blk. 4, Sur. 161 ..... T.D. 1,762 ft.; testing.

Gulf Coast Fields and Wildcats

(Continued from Page 57)

McAlbert Oil Co.'s No. 2-B Higgens (D.D.), William Hodges Sur., 265 ft. from N line and 50 ft. from W line of tract ..... Old total depth 5,197 ft.; sidetracked and drld. to 4,376 ft.; set 51 ft. of 3-in. screen and swabbed S.W.; set whipstock 3,141 ft. and milling out 3,149 ft.

Millis Bennett Prod. Co.'s No. 4 Means, Henry Griffith League, 150 ft. W of No. 3 ..... Set 38 ft. 10 in. of 6⅝-in. screen 4,406 ft.; comp. flowing 1,845 bbls. of P.L. oil, 445 lbs. pressure, ½-in. choke.

Rio Bravo Oil Co.'s No. 3 Fisher, Wm. Bloodgood Sur., 200 ft. E and 33 ft. S of NW cor. of tract ..... Drlg. rock 4,817 ft.
Sinclair Oil & Gas Co.'s No. 8 Wilburn (D.D.), Henry Griffith League ..... Set 109 ft. of 5-in. screen 4,962 ft.; pumping salt water; abnd.

Sun Oil Co.'s No. 3 Higgins, Wm. Hodges Sur., 50 ft. from E line of tr. and direct offset McAlbert Oil Co.'s No. 2-B Higgins ..... Salt 1,651 ft.; top of salt 1,470 ft.; drill pipe stuck.
Sun Oil Co.'s No. 3 Smith (W.O.), W. D. Smith Sur. ... Rig up to deepen 5,315 ft.
The Texas Company's No. 6 Wilburn (D.D.), Henry Griffith League ..... Sand 4,451-63 ft.; swabbed S.W.
Texas Gulf Prod. Co.'s No. 2 Cornelia Barber, Henry Griffith League, 514 ft. W, 41.5 ft. S of NE cor. of tr. ..... Drlg. shale 3,657 ft.; salt 1,420-2,630 ft.

Texas Gulf Prod. Co.'s No. 10-H Kirby, Henry Griffith League, 30 ft. W of No. 3 Ilfrey ..... Drlg. cap rock 1,107 ft.
Texas Gulf Prod. Co.'s No. 11-H Kirby, Henry Griffith League, 150 ft. W of No. 10-H ..... Broken cap rock 1,051 ft.; losing returns.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 23 Moore, Mark Smith Sur., 560 ft. N and 566 ft. W of No. 31 ..... Drlg. sand and shale 2,156 ft.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co. and Humble Oil & Ref. Co.'s No. 3 Booth-Meyers, John Rabb Sur., 1,500 ft. E of No. 1.. Set 298 ft. of 4½-in. screen and liner 5,253 ft.; comp. flowing 35 bbls. hourly through 2½-in. tubing and 3/16-in. choke.

Gulf Prod. Co. and Humble O. & R. Co.'s No. 2-A T. I. Booth, Samuel Kennedy Sur., 445 ft. N of S line and 575 ft. E of No. 1-A ..... Junked and abnd. after blowout 4,588 ft.

Gulf Prod. Co. and Humble Oil & Ref. Co.'s No. 3-A T. I. Booth, Samuel Kennedy Sur., 445 ft. N of S line, E of No. 2-A (junked hole) ..... Rig.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 2 Davis, Robt. Peebles Sur., 2,483 ft. E, 150 ft. S of NW cor. of 1,000-ac. tr. ..... Drlg. sand showing oil 5,286 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4 Lockwood, J. Rabb Sur., 3,000 ft. E and 330 ft. N of SW cor. of tract ..... Drlg. sandy shale and lime 3,197 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. E. 300 ft. N of SW cor. of Tr. 3 ..... Drlg. sandy shale 5,049 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 5-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. W, 300 ft. N of SE cor. of Tr. 2 (469.3 ac.) ..... Set 2 jts. of 5-in. screen 5,334 ft.; comp. flowing 71 bbls. hourly. ⅝ and 5/16-in. chokes; 450 lbs. on tubing and 510 lbs. on casing.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 6-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. from E line and 330 ft. from N line of 469-acre tract ..... Drlg. rock 3,766 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 8-B Lockwood & Sharp, J. Rabb Sur., 1,000 ft. from E line and 300 ft. from N line of Tr. 1 (923.75 ac.) Drlg. shale 996 ft.
The Texas Co.'s No. 1 Wolters (T.M. H. Gubbels), Samuel Kennedy Sur., 742 ft. from W line, 100 ft. from S line of 166-ac. tract ..... Sand showing oil 5,235-51 ft.; cmtd. 9⅝-in. csg. 5,231 ft.

SOUR LAKE—HARDIN COUNTY

Prudential Oil Co.'s No. 1 Maco Stewart, Stephen Jackson Sur., 1,050 ft. from S line and 150 ft. from W line of 50-acre tract ..... Rig.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 28 Cade, N. Fitzsimmons Sur., 400 ft. S, 150 ft. E from No. 26 ..... Shale and lime 6,140 ft.
Yount Lee Oil Co.'s No. 29 Cade, N. Fitzsimmons Sur., 300 ft. E of No. 27 and 240 ft. N of No. 16 ..... Sand showing oil 5,244-72 ft.
Yount Lee Oil Co.'s No. 2 Broussard & Orme, Martin Duman Sur., 300 ft. SE of No. 1 ..... Drlg. sand and line 4,250 ft.
Yount Lee Oil Co.'s No. 11 Smith, Martin Dunman Sur., 130 ft. E of No. 3 and 440 ft. N of No. 5 ..... Oil sand 4,598-4,623 ft.; cmtd. 7-in. csg. 4,590 ft.

Yount Lee Oil Co.'s No. 2 Nellie League, Martin Dunman Sur., 230 ft. N of No. 1 and 300 ft. E ..... Oil sand 4,487-4,521 ft.; cmtd. 7-in. csg. 4,463 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 86 "J" lease ..... Drlg. sandy shale 672 ft.

HUMBLE—HARRIS COUNTY

Burt & Deering's No. 2 C.O.&G.-Texas Co. fee, J. B. Stephenson Sur., 50 ft. E and 50 ft. S of SE cor. of Wheeler & Pickens Blk. 24 in 25-acre tract ..... Derrick.
J. D. Clay's No. 1 Bender, Robert Dunman Sur., 200 ft. from W line and 100 ft. from S line of 106-acre tract ..... Cap rock 1,285-97 ft.
Rio Bravo Oil Co.'s No. 1 Westheimer, 965 ft. W and 300 ft. N of SE cor. of Westheimer Subd., John Jones Sur. ..... Derrick.
Sun Oil Co.'s No. 54 River, Robert Dunman Sur., 50 ft. from E line and 395 ft. from S line ..... Comp. pumping 25 bbls. 1,430 ft.

The Texas Co.'s No. 26 House, Mary Owens Sur., 100 ft. W of No. 20 ..... Sand showing oil 3,482-97 ft.; reaming to set casing.
The Texas Company's No. 25 Wheeler & Pickens (W.O.).. T.D. 1,751 ft. in cap rock; plugged to 1,496 ft.; set screen and bailed fresh water.
E. M. Wilson's No. 10 W. & P.-Texas fee, 50 ft. E line, 40 ft. from N line of Blk. 23, J. B. Stevenson Sur... Derrick.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Production Co.'s No. 35 Taylor, Hamilton Sur. No. 52, 50 ft. S of No. 1 ..... Drlg. shale and lime 3,683 ft.
Moody Corp. and Pure Oil Co.'s No. 1 Herman (W.O.), J. Kopman Sur., 200 ft. due W of C of E line of 25-acre tract ..... Cutting and pulling screen 4,561 ft.
Rio Bravo Oil Co.'s No. 21-A Settegast (D.D.), J. Kopman Sur., 400 ft. S and 200 ft. E of NE cor. "A" lease ..... Rig up to deepen 4,313 ft.
S. B. Ward's No. 1 Mowery, J. Hamilton Sur. No. 53, 300 ft. from W line, 60 ft. from N line of 24-ac. tr... Shut down 1,220 ft.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 2 Minnetex, 125 ft. from W line and 100 ft. from S line of Lot 251, Wm. Lovett Sur. ..... Reset 1½ jts. of 6⅝-in. screen 4,854 ft.; comp. flowing 625 bbls. P.L. oil.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 1 Davis (D.D.), 50 ft. out of SE cor. of David Kokernut Sur. ..... Pulling screen to deepen 3,582 ft.
Cranfill-Reynolds Co.'s No. 1 Moore's Bluff (D.D.), 50 ft. out of NE cor. of M. Duncan ..... Cutting screen to deepen 2,314 ft.
Cranfill-Reynolds Co.'s No. 5 Davis (D.D.), Kokernut Sur., 150 ft. from S line, 1,197 ft. from E line of tract ..... No report.
Cranfill & Reynolds' No. 5 Esperson (W.O.), M. Duncan Sur., 100 ft. N line and 300 ft. E line ..... No report.
Cranfill-Reynolds Co.'s No. 9 Moore's Bluff, M. Duncan Sur., 500 ft. S of N line of Moore's Bluff tract in line with No. 6 Davis and No. 6 Moore's Bluff ..... Location.

HULL—LIBERTY COUNTY

Aberoil Co., Inc.'s No. 1 fee, Jesse DeVore Sur., 700 ft. from E line and 64 ft. from N line ..... Rigging up.
Eclipse Oil Co., No. 2 Barrow, Jesse Devore Sur., 55 ft. W, 35 ft. S of most easterly NE cor. 3.7-ac. tract.... T.D. 4,960 ft.; sand 4,872-4,920 ft.; fishing swab.
Eclipse Oil Co.'s No. 1 Knox-Nelson-Layton, Jesse DeVore Sur., 30 ft. from N line and midway E and W of ½-acre tract ..... Derrick.
Hannah Oil Co.'s No. 1 Hannah, Jesse DeVore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah ..... Drlg. shale 964 ft.
D. & L. Prod. Co. and Bashara Oil Co.'s No. 1 Pevito, Jesse Devore Sur., 344½ ft. from E line and 30 ft. from N line of 5-acre strip ..... Drlg. sand showing oil 4,486 ft.
D. & L. Prod. Co.'s No. 3 Mecom & Layton, Jesse DeVore Sur., 30 ft. from S line, 60 ft. from W line of 3-ac. tr. ..... Derrick.
Healey & Southerland's No. 1 Findley, Jesse DeVore Sur., 50 ft. from E line and 100 ft. from N line of 4-ac. tr. ..... Shut down waiting orders 1,935 ft.
Houston Prod. Co.'s No. 1 Baldwin, Jesse DeVore Sur., 222 ft. from S line and 50 ft. from E line of 5-acre tract ..... Rig.
Republic Prod. Co.'s No. 51-A Dolbear, Jesse DeVore Sur., 25 ft. N of No. 55 ..... Abnd. in salt 2,263 ft.
Republic Prod. Co.'s No. 146 Dolbear, Jesse DeVore Sur., midway between and in line with Nos. 18 and 86 .. Drlg. lime 2,155 ft.

MARKHAM—MATAGORDA COUNTY

Rycade Oil Corp.'s No. 4 Meyers, 250 ft. from S line and 125 ft. from E line of SW, Blk. 1, William Hadden Sur. ..... Rig.
Harvey Smith et al's No. 1 W. H. Gray (W.O.), Wm. Hadden Sur., 400 ft. from S line, 150 ft. from E line of Blk. 2 ..... Set 22 ft. of 4⅝-in. screen 3,636 ft.; tested S.W.; abnd.

FORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 3 Stark, 350 ft. E, 100 ft. N of SW cor. of Marshall Beauchamp Sur. ..... Sand showing oil 3,473-89 ft.; cmtd. 9⅝-in. csg. 3,460 ft.

ORANGE—ORANGE COUNTY

Orange Pet. Co.'s No. 13 Chesson (W.O.) ..... No report.
Sun Oil Co.'s No. 1 Bellis (D.D.) ..... No report.

REFUGIO—REFUGIO COUNTY

E. M. Jones' No. 1-B Mitchell (D.D.), 250 ft. NW of SE line and 250 ft. SW of Mission River ..... T.D. 9,134 ft.; cmtd. 1 string 5¾-in. csg. and 100 ft. screen; drld. plug and flowed fresh water; plugged back 15 ft.
Houston Oil Co.'s No. 2 F. Rooke (W.O.), T. Mullen Sur... Sand showing oil 3,698-3,710 ft.; set combination string of csg. and screen.
Larco Gas Co.'s No. 5 Strauch, Refugio Town tract, Lot 6, Blk. 2, 100 ft. W of No. 2 ..... Shut down awaiting orders.

CLAY CREEK—WASHINGTON COUNTY

Nicholson Oil Corp.'s No. 1 Bimage, C of E½ of J. F. Perry Sur., 200 ft. from W line and 1,300 ft. from S line of 242-ac. tract ..... No report.
John Walker et al's No. 1 Henry Wendt, J. F. Perry Sur., 150 ft. from SW line and 405 ft. from SE line of tract ..... No report.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Ratliff, Seiss & McLean's No. 2 Crusel (W.O.), 50 ft. S and 50 ft. W of NE cor. of Sec. 42-9s-2w ..... Sand showing oil 1,585 ft.
Reliable Oil Co.'s No. 1 Haber, 50 ft. N and 50 ft. W of SE cor., Lot 4, Blk. 12, Sec. 46-9S-2w ..... Sand and shale 1,969-27 ft.; pumped S.W.; shut down.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 2 Waite, 330 ft. out of NE cor. SE. Sec. 12-9s-7w ..... Drlg. sticky shale 4,318 ft.

EDGERLY—CALCASIEU PARISH

C. M. Crotty Oil Co.'s No. 7 Lillard (W.O.) ..... T.D. 2,530 ft.; S.D.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 9 Bordages (W.O.), 319 ft. N and 90 ft. E of SW cor. of NW NE Sec. 8-10s-9w ... Drlg. sandy shale 6,580 ft.
Magnolia Pet. Co.'s No. 4 Frieberg & Wolf (W.O.) ..... Pulling screen to deepen 3,129 ft.
Union Sulphur Co.'s No. 3 Martha Moss, 300 ft. W, 150 ft. S. NE cor. NW SE, Sec. 8-10s-9w..... Tested S.W. 5,300 ft.; pulling screen to deepen.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 751 fee (D.D.), Sec. 29-9s-10w.. Salt 4,344-4,494 ft.; sidetracked to sand 3,354-3,410 ft.; comp. flowing 16 bbls. net oil.
Union Sulphur Co.'s No. 769 fee, 295 ft. S, 918 ft. W of C of Sec. 29-9s-10w ..... Salt 6,053 ft.; sidetracked 3,242-4,628 ft.; drill stem stuck.
Union Sulphur Co.'s No. 770 fee, 292 ft. S, 1,243 ft. W of center, Sec. 29-9s-10w ..... Location.
Union Sulphur Co.'s No. 772 fee, 145 ft. S, 882 ft. W of center, Sec. 29-9s-10w ..... Location.

VINTON—CALCASIEU PARISH

Gulf Ref. Co.'s No. 6 Gray, Sec. 33-10s-12w, 160 ft. W of No. 3 ..... Drlg. gumbo 759 ft.
Vinton Pet. Co.'s No. 5 Matilda Gray (D.D.), 456 ft. W, 362 ft. N, SE cor. SW NE, Sec. 33-10s-12w..... Fishing drill pipe 3,667 ft.

HACKBERRY—CAMERON PARISH

Lackawanna Oil Co.'s No. 1 Ellender, 320 ft. S and 150 ft. E of NW cor. of SE SE of Sec. 21-12s-10w ..... Spudded.

Calcasieu Oil Co.'s No. 34 Watkins, 435 ft. E. 430 ft. S, NW cor., Sec. 24-12s-10w.....Sand 2,963-73 ft.; set 13 ft. of 4½-sand 3,354-3,410 ft.; comp. flowing bls. P.L. oil; 600 lbs.; ¾-in. choke.

Moon Oil Co.'s (R. E. Seiss') No. 1 Breaux, 1,300 ft. N, 150 ft. E of NW cor. of 61-ac. tr., Blk. 25, Sec. 46-12s-10w.....Drlg. sticky shale 4,192 ft.

Moon Oil Co.'s No. 6 Sanner, 1,550 ft. N and 675 ft. E of SW cor. of Sec. 28-12s-10w.....Derrick.

Pop Oil Co.'s No. 1 Ellender, 617 ft. N and 931 ft. W of SE cor. NE, Sec. 19-12s-10w.....Drlg. gumbo 800 ft.

J. D. Sutton's No. 7 Irwin, 1,820 ft. N and 1,490 ft. W of SE cor. of Sec. 13-12s-10w.....Drlg. crystallized lime 3,264 ft.

The Texas Co.'s No. 9 State, 2,329 ft. N. 918 ft. E from SE cor. Sec. 13-12s-10w, in 12s-9w.....Lime and shale showing oil 3,460 ft.

The Texas Co.'s No. 10 State, 2,375 ft. N, 564 ft. E, SE cor. Sec. 13-12s-10w, in Twp. 12s-9w.....Location.

Union Sulphur Co.'s No. 2 Gulf Land (Humble lease), 661 ft. E and 810 ft. N of SW cor., Sec. 12-12s-10w.....Salt 5,720-5,841 ft.; abnd.

Union Sulphur Co.'s No. 1 Gulf land (Pure Oil Co. lease), 1,958 ft. N, 400 ft. W of SE cor., Sec. 11-12s-10w.....Sand showing oil 3,316-24 ft.; fishing drill pipe.

Yount Lee Oil Co.'s No. 11 School land, 2,810 ft. W and 1,608 ft. N, SE cor., Sec. 15-12s-10w.....Drlg. lime 3,755 ft.

PORT BARRE—ST. LANDRY PARISH

Gulf Ref. Co.'s No. 2 Wilson & Cockran, Sec. 4-6s-5e, 600 ft. N of No. 1.....Rig.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 21 United Land Co., 3,088 ft. E and 690 ft. N of SW cor. of Sec. 15-10s-4e.....Drlg. gumbo 1,520 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 12-12s-8w, 800 ft. S 66 deg. 42 min. from No. 9.....Location.

LEESVILLE—LA FOURCHE PARISH

The Texas Co.'s No. 5 L.L.&E., 3,888 ft. S, 105 ft. E of NW cor. of Sec. 26-21s-22e.....Oil sand 3,653-63 ft.; cmtd. 7-in. csg.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Great Southern Oil Co.'s No. 1 Schevojsa, 329 ft. N. 78° E of N cor. B. Dottery Sur.....Drlg. shale 2,315 ft.

O'Hara Oil & Gas Co.'s No. 1 Neilius, J. C. Cummings Hacienda Sur., 650 ft. N of No. 1 Schroeder in 18-acre tract, north edge Mill Creek.....Derrick.

BRAZORIA COUNTY

John Deering's No. 1 C. W. Chapman, 294 ft. from S line and 104 ft. from E line of Lot 2, Andrew Robinson Sur.....Drlg. lime and shale 3,440 ft.

J. R. Ingram's No. 2 Levitt, John Peske Sur., 75 ft. NW of No. 1.....Standing 2,185 ft.

Shell Pet. Corp.'s No. 5 Blakely-Winston, Danbury, 1,410 ft. N 63° and 1,200 ft. N 27° W of SW cor. of H.T.&B. Sur. No. 14.....Rig.

The Texas Company's No. 3 Belcher, Manvel, Harvey N. Little Sur., 1,320 ft. southwesterly and 200 ft. southeasterly out of N cor. of Belcher lease.....Gumbo 1,340 ft.; cmtd. 13⅜-in. csg. 1,310 ft.

BURLESON COUNTY

Ball & Knob's No. 2 Polansky, M. B. Lawrence Sur., 359 ft. from E line and 469 ft. from N line of 158-ac. tr.....Shut down 650 ft.

E. M. Bracey et al's No. 1 Bracey, J. Lastly Sur., 880 ft. from E cor. of P. Taylor 110 acres, SE along NE line of J. G. Houston 160 acres, thence 180 ft. at right angles in 3-acre tract.....Drlg. sandy shale 1,100 ft.

Marek & Son's No. 3 A. Marek, N. McFaddin Sur., 1,068 ft. N and 225 ft. W of SE cor. of tract.....Standing 2,210 ft.

M. O. & T. Corp.'s No. 1 Rogers.....Abnd. 2,710 ft.

Sampson Oil & Gas Co.'s No. 1 Duckworth & Gilley, 100 ft. from S line and 100 ft. from W line of Blk. 8, P. Singleton Sur.....Shut down 2,648 ft.

J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 81 ft. SW and 4,340 ft. SE of S cor. of Joseph Henson Sur.....Gumbo 600 ft.; standing.

COLORADO COUNTY

Bunte and Shell Pet. Corp.'s No. 1 Rudolph Matuska, Joshua Henneke Sur., 700 ft. S of most northerly NW cor. in C E and W of 130-acre tract.....Derrick.

Coyle-Concord Oil Co.'s No. 1 Nelson, L&G.N. Sur., Sec. 43.....Sand showing gas 4,024 ft.; drill stem test showed 600 lbs.; set 7-in. csg. and 26 ft. screen (one string); drlg. plug.

Smith, Adair et al's No. 1 Barnett, 230 ft. from W line and 330 ft. from S line of Blk. 26, Q. K. Winn Sur.....Drlg. shale 3,310 ft.

FORT BEND COUNTY

Naylor & DeCosta's No. 1 Naylor, 6,350 ft. N, 55 deg. E from SW cor. 653-acre tract in Christman Sur.....No report.

Stone & Wyman's No. 1 Beard, H.&T.C. Sur. No. 118, 1,150 ft. from NW line, 1,892 ft. from NE line.....No report.

GALVESTON COUNTY

H. H. Stevenson's No. 1 Lobit, J. F. Perry and E. M. Austin Sur., 250 ft. N of Dickinson Bayou, and 250 ft. W of E line of E. Lobit 23-ac. tr.....Shut down 600 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur.....Drlg. 1,910 ft.

HARDIN COUNTY

W. R. Alexander et al's No. 1 Southwestern Lbr. Co., 150 varas W of C of E line of Mary K. Sherman Sur.....Gumbo 330 ft.; 16-in. csg. 250 ft.

Houston Oil Co. and Republic Prod. Co.'s No. 1 Ariola fee, 3,660 ft. from N line and 9,700 ft. from E line of Ariola Sur.....Rigging up.

Joe E. Proctor's No. 1 Russell & Teagle, 3,650 ft. E and 2,777 ft. N of NW cor. of Wm. W. Young Sur.....Drlg. gumbo 1,972 ft.

HARRIS COUNTY

T. V. Buckholve & Sons' No. 1 Miller, Arthur McCormick Sur.....D.S. stuck 547 ft; standing

Crown-Pramer Oil Co.'s No. 1 Woodburn, Genoa, August Whitlock Sur., 200 ft. out of NW cor. of tr.....Derrick; to drop from report.

Crown-Pramer Oil Co.'s No. 2 Woodburn, 1,400 ft. S, 400 ft. E of NW cor. August Whitlock Sur.....Cmtd. 10-in. csg. 235 ft. T.D. 239 ft.; standing; to drop from report.

John Deering's No. 1 Warren, Hockley T. Snell Sur., 100 ft. due south of The Texas Co.'s No. 2 Warren.....Drlg. gumbo 1,222 ft.

H. D. Morse et al's No. 1 Schlveinle, Wm. White Sur., 900 ft. S 80° W of NW cor. of L'enberger 20-ac. tract in Blk. 1.....Drlg. gumbo 2,206 ft.

Victor Smith's No. 1 Dr. Griffith, S. Bell Sur., 582 ft. from E line and 60 ft. from N line of 250-acre tract.....Drlg. gumbo 236 ft.

Suma Oil Co.'s (Lucket et al's) No. 1 Wilson & Hunt, Wm. Ritchie Sur., 200 ft. from S line and 500 ft. from W line of 50-acre tract.....Drlg. gumbo 1,826 ft.

JASPER COUNTY

Hext Drlg. Co.'s No. 1 Flourney, B. F. Jones Sur., 980 ft. NW of Helmerich & Payne's No. 1 Flourney.....Shut down 4,521 ft.

Rio Neches Oil Co.'s No. 4-A Boykin, M. Rackle Sur., 400 ft. E of No. 3-A.....Spudded.

JEFFERSON COUNTY

Coast Oil & Gas Co.'s No. 1 Young, Joseph Grigsby Sur., 350 ft. from E line and 160 ft. from S line of 40-acre tract in Block F-5, Lot 6.....Derrick.

Elam & Pipkin's No. 2 Broussard, John McGaffey Sur., 150 ft. due E of No. 1.....Shut down 1,855 ft.

LIBERTY COUNTY

Bain-Rheubotham's No. 1 J. M. Neal, Edward Tanner Sur., 1,800 ft. E, 1,300 ft. N of most westerly NW cor. of Margaret Evans Sur.....Drlg. gumbo 1,182 ft.

Mayes et al's No. 1 Dunman, J. C. Martin Sur., 1,111 ft. from S line of survey and 2,360 ft. W of Trinity River.....Location.

MATAGORDA COUNTY

Dr. Griffith et al's No. 3 Baer, Big Hill, 5,000 ft. N, 3,000 ft. E from SW cor. of Seth Ingram Sur.....T.D. 2,650 ft.; reaming to set csg.

Shepherd's Mott Salt Dome Oil Co.'s No. 1 Hawkins, Shepherd's Mott, 5,268 ft. from N line and 1,320 ft. from E line of B. McCarthy Sur.....Drlg. gumbo 2,905 ft.

United North & South Oil Co.'s No. 1 Stoddard, J. C. Keller Sur., 150 ft. W and 545 ft. N of SE cor. Blk. 53, Buckeye Townsite.....Fishing 7,833 ft.

MONTGOMERY COUNTY

Alpha Oil Co.'s No. 1 South Tex. Dev. Co., center of Blk. 47, in southeast Alex McCown Sur.....Drlg. shale 4,560 ft.

Gohlson Bros. and Rycade Oil Corp.'s No. 1 Drought, 3,340 ft. along N line of Kronkrite Sur., from NE cor., thence 250 ft. S at right angles.....D.S. test of sand 3,849-73 ft.; showed S.W.

Hamilton et al's No. 1 Freeman, John Davis Sur., 256 ft. from W line and 465 ft. from S line of 46-acre tract.....Derrick.

Heep Oil Corp.'s No. 1 Brent, D. W. Collins Sur., 330 ft. from S line in center east and west of 209-ac. tr.....Drlg. shale 4,746 ft.

Heep Oil Corp.'s No. 1 Cartwright (D.D.), 2,861.6 ft. southerly along W line of John O. Davis Sur. from NE cor. and thence 450 ft. E.....Cmtd. 1 string 5-in. (O.D.) csg. and 43 ft. screen 5,186 ft.

Heep Oil Corp.'s No. 2 Cartwright Sur., John Davis Sur., 330 ft. from S line, 400 ft. from E line of tr.....Drlg. hard sand 3,075 ft.

Houston Oil Co.'s No. 1 Hamman, Charles B. Stewart Sur., 450 ft. from N and W line of 232.5-ac. tr.....Coring shale 4,942 ft.

Humble Oil & Ref. Co.'s No. 1 C. L. Dobbins, Ransom House Sur., 425 ft. from N line and 466 ft. from W line of tract.....Rig.

Humble Oil & Ref. Co.'s No. 4 South Tex. Dev. Co., 1,900 ft. N from SE cor. of T. C. Rowell Sur., thence 466 ft. W at right angles.....Derrick.

Kraft & Gesieke's No. 2 South Tex. Dev. Co., center T.&N.O. Sur., Blk. 5.....Location.

Kraft & Gesieke's No. 1 South Tex. Dev. Co., T.&N.O. Sur., Blk. 9.....Coring shale 4,636 ft.

Lowrie & Young's No. 1 C. A. Damuth, approx. 5,430 ft. from E line and 3,018 ft. from S line of T. J. Nichols Sur.....Location.

Miller Prod. Co.'s No. 1 Foster Lbr. Co., M. B. Lawrence Sur., 2,640 ft. from N line and 300 ft. from E line of 412-acre tract.....Location.

Moore et al's No. 1 Burton, I.&G.N. Sur., 466 ft. out of NE cor. 46-acre tract.....Spudded.

Pevehouse Oil Co.'s No. 1 Sealey, Jas. Pevehouse Sur., 1,575 ft. N of N line of Horton & Woodson's 1,562-acre tract and 2,236 ft. E of W line of H.&W. 1,870-acre tract.....Shut down 3,984 ft.

Plummer & McDaniel's No. 1 South Tex. Dev. Co., Theo. Slade Sur., 330 ft. from S and E lines of 60-ac. lease, in Lot 103.....Drlg. gumbo 3,526 ft.

Rowe & Flowers' No. 1 Varner, R. House Sur., 330 ft. out of NE cor. of 33-ac. tr.....Drlg. shale 4,362 ft.

Rowe & Flowers' No. 1 Alexander, 330 ft. out of SE cor. Lot 20 in the NW A. McCown Sur.....Drlg. shale 4,225 ft.

C. C. Steinberger et al's No. 1 Steinberger, John Davis Sur., 450 ft. from N and W lines of the 250-ac. tract.....Drlg. sticky shale 2,364 ft.

Strake Oil Corp.'s No. 3 South Tex. Dev. Co., 2,475 ft. from W line and 790 ft. from S line of Theo. Slade Sur.....Coring shale 4,114 ft.

R. H. Vice's No. 1 S. L. Ross, Jose Maria De La Garza Sur., 1,777 ft. N and 344 ft. E of SW cor. 97-acre tract.....Derrick.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line and 500 ft. from N line of tract.....Shut down 350 ft.

Sun Oil Co.'s No. 1 Peevey Moore Lbr. Co., 2,145 ft. from S line and 1,225 ft. from W line of F. Stoevar Sur. No. 4.....Derrick.

ORANGE COUNTY

Altex Oil Co.'s (Veteran Oil Co.) No. 1 Reed, A. Nelson Sur. No. 1, 500 ft. from N line and 250 ft. from E line of tract.....Set 10-ft. blank and 15 ft. of 4½-in. screen 4,808 ft.

POLK COUNTY

Anderson et al's No. 1 Duke, Peter J. Manard Sur., 330 ft. out of NW cor. of 235-acre tract.....Spudded.

Coch & Stevens' No. 1 Ruth Lawrence, Castillian Sur., 300 ft. from W line and 790 ft. from S line of 54-acre tract.....Shale 876 ft.; shut down.

W. H. Freeman's No. 2 Freeman, A. Viesca Sur.....Washing to bottom 3,160 ft.; to deepen.

Tony & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur.....Rig.

REFUGIO COUNTY

Gulf Prod. Co.'s No. 1 J. O'Connor, C.E.P.I.&M. Sur., 1,200 ft. from S line and 1,500 varas from E line of tract.....Drlg. shale and lime 3,812 ft.

Humble Oil & Ref. Co.'s No. 1 O'Connor (D.D.), 6,012 ft. S from NE cor. along SE line of Lon T. Rios Sur., thence 7,375 ft. W at right angles in John Keating Sur.....Drlg. sandy shale 5,652 ft.

Humble Oil & Ref. Co.'s No. 2 O'Connor, John Keating Sur., 12,625 ft. N of S line at right angles and 3,158 ft. W of E line at right angles.....Drlg. sandy shale 5,637 ft.

TRINITY COUNTY

C. N. Beckner's No. 1 Mangum, J. A. Henderson Sur., 200 ft. out of NE cor. 80-acre tract.....Drlg. gumbo 735 ft.

Joseph M. Weaver's No. 1 Thompson, 150 ft. out of NE cor. of I.&G.N. Sur., No. 47.....S.D. 3,556 ft.

VICTORIA COUNTY

Bunte et al's No. 2 Keeran, Martin DeLeon Sur., 200 ft. E of No. 1.....Coring shale 5,698 ft.

Cullen & West's No. 1 Keeran ranch, Martin DeLeon Sur., 450 ft. from S line, 450 ft. from W line of tr.....Drill stem stuck 6,000 ft.

Houston Oil Co.'s No. 1-A McFaddin, 200 ft. from NE line, 240 ft. from SE line of I.R.R. Sur. No. 20.....T.D. 5,292 ft.; drill stem stuck; sidetracking 3,478 ft.

Humble Oil & Ref. Co.'s No. 1 Pete Rydolph, John Kemper Sur., 2,617 ft. from E line and 1,013 ft. from W line of lease.....Sand showing gas 2,096 ft. to make drill stem test; shut down for high water.

The Texas Company's No. 4 McFaddin, 86 deg. E. 1,728½ ft. from NE cor. of Andrew J. Gray Sur. in John M. Rine Sur.....T.D. 2,840 ft.; sidetracked 1,050-2,011 ft.; blew out; drill stem stuck.

Union Oil Co.'s No. 1 Keeran, 4,166 ft. SW along SE line of Gulf Prod. Co.'s 2,500-ac. lease from most easterly cor., thence 1,390 ft. SE at right angles in Martin DeLeon Sur.....Drlg. shale 4,312 ft.

WALKER COUNTY

W. E. Brown's No. 1 Horshall, 150 ft. out of SE cor. of E. Miller Sur.....Drlg. shale 836 ft.

Hart Oil Co.'s No. 1 Thompson Lbr. Co., Jose Ortega Sur., 1,265 ft. S, 1,876 ft. W of SW cor. of J. B. Gibson's 71-acre tract.....Shut down 2,090 ft.

Geo. F. Kerr's No. 1 Smithers Bros., S. Manning Sur.....Shut down 2,240 ft.

WALLER COUNTY

McDaniel and associates' No. 1 Citizens State Bank, B.B.B.&C. Sur., C of 150-acre tract ..... No report.
Seven Wells Oil Corp.'s No. 1 Maxwell, Justo Liendo Sur., 335 ft. from N line and 492 ft. from W line of 86-acre tract ..... Location.

WASHINGTON COUNTY

M.O.&T. Corp.'s No. 1 Giddings, S. Young Sur., 200 ft. from S line and 150 ft. from W line of 695-acre tract ..... Derrick.

SOUTH LOUISIANA

ASCENSION PARISH

Rio Bravo Oil Co.'s No. 1 Community Lease, Darrow, 200 ft. from N line and 1,500 ft. E at right angles from SW cor. of Sec. 15-10s-2e ..... Rigging up.

BEAUREGARD PARISH

DeRidder Dev. Co.'s No. 1 McMahon, 200 ft. W and 156 ft. S of NE cor. of NW of Sec. 33-2s-9w ..... Sand 1,120 ft.; cmtd. 6⅝-in. csg.

CAMERON PARISH

Brownie-Babbetto Oil Co.'s No. 1 R. A. Moore, 562 ft. W, 50 ft. S of NE cor. E half SE of Sec. 18-12s-12w.. Sand showing oil 6,619-22 ft.; cmtd. 6⅝-in. csg.

EVANGELINE PARISH

Emile LeDeau's No. 1 Vidrine, 260 ft. W and 350 ft. S of NE cor. of Sec. 47-3s-3e ..... Shut down 1,420 ft.

IBERIA PARISH

Warrick Oil Co.'s No. 1 Bernard, 912 ft. N and 150 ft. E of SW cor. Sec. 54-12s-7e ..... Abnd. 2,982 ft.

IBERVILLE PARISH

Standard Oil Co.'s No. 2 Myrtle Grove-Wilbert, Bayou Choctaw, 2,040 ft. N and 600 ft. W of C of Sec. 52-9s-11e ..... Salt 4,203-38 ft.; standing.

JEFFERSON DAVIS PARISH

D. C. Gillette's No. 1 J. A. Jester, 2,487 ft. S and 1,800 ft. W of NE cor. of Sec. 27-8s-3w ..... Shale 915 ft.
Little City Oil Co.'s No. 1 Jennings Norwood, 1,975 ft. N and 675 ft. E of SW cor. of Sec. 44-9s-3w ..... Sand and shale 745 ft.

PLAQUEMINES PARISH

Lake Washington-Freeport Sulphur Co.'s No. 2 Cockrell-Moran, Sec. 14-20-26e, 1,318 ft. N and 4,396 ft. E of station ..... Sulphur test.
Lake Washington-Freeport Sulphur Co.'s No. 1 Louisiana State, 598 ft. N and 1,229 ft. E of station ..... Sulphur test.

POINTE COUPEE PARISH

Grand Bay Oil & Gas Co.'s No. 1 Moniotte, 10,140 ft. S and 13,450 ft. E of NW cor. Twp. 5s-11 in Sec. 34.... Shut down 310 ft.

TERREBONNE PARISH

The Texas Company's No. 7 State-Lake Pelto, 2,216 ft. N, 104 ft. W of SE cor., Sec. 8-23s-18e ..... Derrick.
comp. flowing 2,000 bbls. P.L. oil, ½-in. choke.
The Texas Co.'s No. 16 State-Lake Barre, 1,500 ft. S, 150 ft. E of NW cor., Sec. 30-21s-19e ..... Derrick.

VERMILLION PARISH

Pure Oil Co.'s No. 1 Mulvey Irrigation (Gueydan), 1,-170.9 ft. from N line and 2,252.5 ft. from W line of Sec. 34-11s-1w ..... Drlg. broken sand and lime 2,939

VERNON PARISH

Minerals Division Llano Co.'s No. 1 Llano Del Rio, 543 ft. E and 300 ft. S of NW cor. of NW of Sec. 34-2n-9w ..... Shut down 1,070 ft.

WEST FELICIANA PARISH

Putnam Synd.'s No. 3 Come Plantation, Sec. 51-1s-14w... Shut down 2,443 ft.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 56)

SABINE PARISH

Adams & Roberson's No. 1 Peterson, 406 ft. N, 300 ft. W, SE cor. NE NE, Sec. 35-8-13 ..... Set 10-in. at 100 ft.
J. H. Askew's No. 1 Sabine Lbr. Co., NE NE, Sec. 9-7-13 Salt wtr. and abnd. 2,455 ft.
R. W. Boulding's No. 1 Williams, Sec. 17-7-10, 200 ft. S and E, NW cor. SW NE ..... S.D. 2,000 ft.
Bridwell Oil & Gas Co.'s No. 1 Bray, 200 ft. N and W, SE cor., SE NW Sec. 32-8-11 ..... Location.
Bridwell Oil & Gas Co.'s No. 2 Bray, 200 ft. S, 90 ft. W, NE cor. NE ¼W Sec. 32-8-11 ..... Location.
R. E. Brooke's No. 1 A. Gray, 330 ft. N and W, SE cor. SW NE, Sec. 35-8-13 ..... Location.
V. V. Bull's No. 1 Henderson, 275 ft. N, 165 ft. E, SW cor. SW SE, Sec. 31-8-10 ..... Derrick.
F. M. Burke's No. 1 Gray, 454 ft. N, 265 ft. W, SE cor. SW SW, Sec. 3-7-13 ..... Set. 6-in. 2,051 ft.
Bob Chew's No. 1 O. Gray, 330 ft. N and E, SW cor. SW NW, Sec. 35-8-13 ..... Location.
Cliff Oil Co.'s No. 1-A Martinez School, 720 ft. N, 105 ft. W, SE cor. NE SE, Sec. 4-7-13 ..... Drlg. 2,385 ft.
Clopton et al's No. 1 Campbell, 235 ft. S, 353 ft. W, NE cor. NW NE Section 5-7-11 ..... Derrick.
Clopton et al's No. 1 Garcia, 330 ft. N and W, SE cor. SE NW Sec. 4-7-13 ..... Location.
W. M. Coates' No. 1 Gray, 330 ft. N and W, SE cor. SW, Sec. 3-7-13 ..... Location.
W. M. Coates' No. 2 Gray, 330 ft. S and W, NE cor. SE SW, Sec. 3-7-13 ..... Location.
Coates Pet. Co.'s No. 2 Stille, 330 ft. N and E, SW cor. SE SW, Sec. 35-8-11 ..... W.O.S.R. 2,465 ft.
Coates Pet. Co.'s No. 3 Stille, 330 ft. N and E, SW cor., Sec. 35-8-13 ..... Location.
The Coming Oil Co.'s No. 1 Cobb, 330 ft. N and E, SW cor., Sec. 14-7-11 ..... Derrick.
Craig et al's No. 1 Travis, Sec. 13-7-11, 200 ft. S and E, NW cor. SE NW ..... W.O.S.R. 2,580 ft.
Crescent Drlg. Co.'s No. 1 Williams, 370 ft. E, 330 ft. S, NW cor. N½ SW, Sec. 21-7-12 ..... Location.
Crescent Drlg. Co.'s No. 2 Williams, 330 ft. S and W, NE cor. SE NW, Sec. 21-7-12 ..... Location.
Mark Curtis et al's No. 1 Sabine Lbr. Co., 330 ft. N and W, SE cor. NE SE, Sec. 35-8-13 ..... Derrick.
R. E. Davidson's No. 1 Davis, 400 ft. S, 125 ft. E, NW cor., Sec. 28-7-11 ..... Derrick.
William DeSoto's No. 1 Mooney, 350 ft. S, 395 ft. E, NW cor., Sec. 35-8-13 ..... Derrick.
B. A. Ferrell's No. 1 Haley, Sec. 6-7-12, 300 ft. S and E, NW cor. NW SW ..... Set. 4½-in. 2,050 ft.
Harry Flinchbaugh's No. 1 Sepulbedo, 250 ft. N and E, SW cor. SE NE, Sec. 4-7-13 ..... Drlg. 2,390 ft.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 300 ft. W, NE cor. NW NW, Sec. 10-8-13 ..... S.D. for wtr., 6,052 ft.
R. L. Gay, tr.'s No. 11 Bowman-Hicks, 330 ft. N and W, SE cor. NE NE, Sec. 14-7-14 ..... Dry and abnd. 2,325 ft.
J. I. Hall's No. 1 Williams, SE NW, Sec. 3-7-10 ..... Dry and abnd. 2,331 ft.
W. N. Hankins' No. 1 Tilley, 200 ft. E, 30 ft. S, NW cor. SE SE, Sec. 30-8-12 ..... Rigging up.
Howard et al's No. 1 Williams, 300 ft. N and E, SW cor. SE NW, Sec. 13-7-11 ..... W.O.S.R. 2,580 ft.
J. B. Huges' No. 1 Stille, 283 ft. N, 383 ft. W, SE cor. SE SW, Sec. 35-8-11 ..... Set 6-in. at 2,431 ft.
Ab Jones' No. 1 Garcia, 200 ft. S and W, NE cor. NW SE, Sec. 4-7-13 ..... Rigged up, S.D. for wtr.
G. E. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE, Sec. 34-8-11 ..... Rigging up.
A. D. King, tr.'s No. 1 Davis, 170 ft. N, 410 ft. E, SW cor. NW NE, Sec. 29-7-11 ..... Location.
A. D. King, tr.'s No. 1 Germain, Sec. 7-7-12, 330 ft. E, 518 ft. N, SW cor. NE NE ..... S.D. 2,685 ft.
A. D. King, tr.'s No. 1 T. L. Andries, 200 ft. S, 300 ft. E, NW cor. SE SE, Sec. 15-7-11 ..... Derrick.
A. D. King, tr.'s No. 1 J. J. Andries, 140 ft. S, 240 ft. W, NE cor. SE SW, Sec. 15-7-11 ..... Pulling liner 2,677 ft.
S. A. Lane et al's No. 1 DeKeyser, 235 ft. E, 320 ft. S, NW cor. NE, Sec. 23-7-11 ..... S.D. 2,819 ft.
Geo. LeGrand's No. 1 McGough, Sec. 3-8-10 ..... S.D. 1,450 ft.
H. C. Maulding's No. 1 Moores, 330 ft. S and W, NE cor. SE NE Sec. 16-7-13 ..... Location.
Hill Myers' No. 1 Garcia, 200 ft. N and W, SE cor. SW NW, Sec. 4-7-13 ..... S.D. for water 1,200 ft.
E. F. Neely's No. 1 Rains, 660 ft. N, 100 ft. W, SE cor., SW NW, Sec. 14-7-11 ..... W.O.S.R. 2,541 ft.
Neely et al's No. 1 C. Henry, Sec. 22-7-11 ..... Derrick.
C. D. Neff, tr.'s No. 1 Snell, Sec. 9-7-11, 350 ft. N, 660 ft. W, SE cor. Sec. ..... W.O.S.R. 2,509 ft.
C. D. Neff, tr.'s No. 1 Peterson, 200 ft. N and E, SW cor. NW NW, Sec. 26-8-13 ..... S.D. 2,405 ft.
Palmer & Smitherman's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and E, NW cor. NE SE..... Location.
Palmer & Smitherman's No. 2 La. Long Leaf Lbr. Co., 330 ft. S and W, NE cor. SE, Sec. 12-7-11..... Location.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE, Sec. 8-8-10..... Derrick.
J. H. Reeves' No. 1 Sabine State Bank, NE SW, Sec. 28-8-11 ..... W.O.S.R. 2,575 ft.
Thornton et al's No. L. S. S. Martinez, 355 ft. S, 330 ft. W, NE cor. SE NE, Sec. 4-7-13 ..... Derrick.
Otis A. Roberts' No. 2 S. S. Martinez, 312 ft. E, 25 ft. S, NW cor. SE NE, Sec. 4-7-13 ..... Derrick pattern.
Otis A. Roberts' No. 1 Sabine Lbr. Co., 224 ft. S, 481 ft. W, NE cor. SW NE, Sec. 5-7-13 ..... Derrick.
Bill Rowe's No. 1 Sepulbedo, 530 ft. N, 200 ft. E, SW cor. SE SE, Sec. 4-7-13 ..... Set. 10-in. at 102 ft.; drlg. 750 ft.
Sculley & Black's No. 3 Lafitte, 1,400 ft. S, 133 ft. W, NE cor. NW NW, Sec. 13-7-11 ..... Location.
Skully & Beach's No. 2 Lafitte, 149 ft. S, 228 ft. E, NW cor., Sec. 13-7-11 ..... S.D. 1,500 ft. for water.
H. R. Smith et al's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and W, NE cor. NW SW..... Location.
W. W. Smith et al's No. 1 Sepulbedo, 330 ft. N, 250 ft. W, SE cor., Sec. 4-7-13 ..... Drlg. 1,850 ft.
Sneed & Sneed's No. 1 Pearce, 200 ft. N, 215 ft. E, SW cor. NE SW, Sec. 35-8-13 ..... Testing 2,405 ft.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE, Sec. 13-9-11..... S.D. 1,905 ft.
H. B. Stacey et al's No. 1 Hefkobita, 457 ft. N, 583 ft. E, SW cor. SE, Sec. 34-8-13 ..... Derrick.
State Prod. Co., Inc.'s No. 1-B Davis, 200 ft. N and E, SW cor., Sec. 17-7-10 ..... Derrick.
Supreme Oil Co.'s No. 1 Pruitt, 330 ft. N and E, SW cor. SE SW, Sec. 30-8-11 ..... Set 10-in. at 100 ft.; drlg. 175 ft.
B. E. Taylor's No. 1 Gay, 232 ft. S, 476 ft. E, NW cor. SE SW, Sec. 36-8-13 ..... Location.
B. E. Taylor's No. 1 Wooley, 330 ft. N and E, SW cor. SE SW, Sec. 36-8-13 ..... Location.
A. F. Tarver's No. 3 Cutrer, Sec. 12-7-11, 1,120 ft. E, 300 ft. N, SW cor. NW..... W.O.S.R. 2,600 ft.
A. F. Tarver's No. 1 R. Stoker, 1,980 ft. S, 1,320 ft. W, NE cor., Sec. 34-8-10 ..... Drlg. 3,200 ft.
Thornton et al's No. 2 S. S. Martinez, 312 ft. E, 205 ft. S, NW cor. SE NE, Sec. 4-7-13 ..... Location.
A. A. Trammell's No. 1 Sepulbedo, 330 ft. N and W, SE cor. NW NE, Sec. 5-7-13 ..... Derrick.
Triangle Drlg. Co.'s No. 1 La.-Long Leaf Lbr. Co., 330 ft. N and W, SE cor. Sec. 11-6-11 ..... Rigging up.
W. C. Turnbow's No. 1 Williams, 200 ft. W C E line SW NW, Sec. 13-7-11 ..... Location.
W. C. Turnbow's No. 2 Williams, 175 ft. S, 200 ft. E NW cor. SW NW, Sec. 13-7-11 ..... Drlg. 1,915 ft.
Tuffree et al's No. 1 T. L. Andries, N½ NE SE, Sec. 15-7-11 ..... Set 10-in. 100 ft.
C. C. Walker's No. 1 Noble-Neely, 330 ft. S and E, NW cor. SW, Sec. 36-8-13 ..... Set 10-in. at 101 ft.; drlg. 600 ft.
Williams & Spiers' No. 1 Williams, Sec. 31-8-10, SE cor. SE SW ..... Comp. 500 bbls., 2,468 ft.
Wurtsbaugh & Torren's No. 1 Peterson, 330 ft. N and W, SE cor. SW NE, Sec. 26-8-13..... Location.
Wurtsbaugh & Torran's No. 1 Gray, 330 ft. N and SE cor. SE NW, Sec. 35-8-13 ..... Skidded over, set 10-in. at 102 ft.

TENSAS PARISH

A. R. Willis et al's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor., Sec. 39-11-12..... S.D. 2,545 ft.

VERNON COUNTY

Llano Co-operative Colony's No. 1 fee, NW NE, Sec. 34-2n-9w ..... Drlg. 1,290 ft.

WINN PARISH

Tex Lloyd's No. 1 Milam, C NW SW, Sec. 28-13-3..... Location abnd.

ARKANSAS

CLAY COUNTY

S. C. Jeffus' No. 1 Underwood, 510 ft. N, 350 ft. W, C, NW SE, Sec. 4-20-3 ..... 1,253 ft.

CLEVELAND COUNTY

Crum & Stillwell's No. 1 E. R. Bell, Sec. 10-10s-12..... Rigged up and S.D.

DALLAS COUNTY

J. H. James, tr.'s No. 1 Fordyce Lbr. Co., 200 ft. S, 200 ft. E, NW cor. SE, Sec. 11-9-15..... S.D. 2,575 ft.

DREW COUNTY

Co-Operative Dev. Co.'s No. 1 Ogles, Sec. 35-15-5, 330 ft. S and E, NW cor. NE NW..... Drlg. 2,560 ft.

HOT SPRINGS COUNTY

Star Oil Co.'s No. 1 Cunningham, 285 ft. S, 285 ft. W, NE cor., Sec. 11-5-16..... S.D. 1,340 ft.

LINCOLN COUNTY

Lawrence Cook, tr.'s No. 1 McGhee Planting Co., 420 ft. S, 300 ft. W, NE cor. NE SW, Sec. 5-8-7..... Fishing for drill stem 2,800 ft.

LITTLE RIVER COUNTY

Harrell et al's No. 1 Taffee, 32 ft. W, 630 ft. E, 330 ft. S, SW cor. W NW, Sec. 25-12s-32w ..... Derrick.

MILLER COUNTY

C. E. Litchfield's No. 1 Hervey, 525 ft. S, 350 ft. W, NE cor. NE NW, Sec. 2-15-26..... T.A. 2,885 ft.
Fitzwater et al's No. 1 E. A. McCowand, NW cor. NW SE, Sec. 22-15-28 ..... Location.
Fitzwater et al's No. 1 C. J. Norsen, SW cor. SE SW, Sec. 20-15-27 ..... Derrick.
Fitzwater et al's No. 1 Beck, Sec. 32-15-26..... S.D. 2,926 ft.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor., Sec. 11-20-27..... S.D; W.O. 2,600 ft.

OUACHITA COUNTY

Copenhaven et al's No. 2 Berg, C SE SE, Sec. 12-15-17.. W.O.S.R. 2,208 ft.
McLean et al's No. 1 L. D. Neely, Sec. 23-15-16, 200 ft. N and W, SE cor. NE SW..... S.D. 102 ft.
Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Section 36-12-18 ..... Drlg. 465 ft.

PIKE COUNTY

E. R. Henderson's No. 1 J. L. Lee, 400 ft. S, 350 ft. E, NW cor. SW SE, Sec. 31-8-24..... S.D.; W.O. 1,020 ft.
E. R. Henderson's No. 1 W. B. East, 200 ft. S, 150 ft. W, NE cor., Sec. 13-9-23..... Rigging up on new hole.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW, Sec. 3-4n-6w ..... Partly rigged up and S.D.

SCOTT COUNTY

Waldron O. & G. Co.'s No. 1 White, NE cor. SW NW, Sec. 17-3n-29 ..... S.D. 1,340 ft.

SEVIER COUNTY

Tristate Oil Co.'s No. 1 Grimble, Sec. 34-8-22, S½ SW ... S.D. 950 ft.

ST. FRANCIS COUNTY

Field & Jones' No. 1 F. M. White, Sec. 1-4n-2e, SW cor. NW ... Dry and abnd. 3,411 ft.

E. R. Henderson's No. 1 Britton, Sec. 1-4-1e, 1,000 ft. S and E NW cor. NE NW ... Drlg. 1,603 ft.

UNION COUNTY

Cox et al's No. 1 Goodwin, 360 ft. S, 180 ft. W, NE cor. SW SW, Sec. 3-16-16 ... Moving in rig.

H. H. Helms' No. 1 C. H. Murphy, NE cor. NW NE, Sec. 21-16-14 ... S.D. 2,875 ft.

Wilson & Chapman's No. 1 King, Sec. 3-18-13, 330 ft. N and E, SW cor. NE NE ... Derrick.

Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE, Sec. 3-18-13 ... S.D. 1,678 ft.

WASHINGTON COUNTY

(Cable tools)

A. B. Chase and Ed Rogers' No. 1 Cunningham, 125 ft. S, 300 ft. W, NE cor. SW NE, Sec. 14-15-32 ... S.D. waiting on csg., 1,750 ft.

EAST TEXAS

BOWIE COUNTY

Logan & Elliott's No. 1 Smith, 9,600 ft. S, 2,500 ft. W, NE cor. Chas. Lewis Sur. ... S.D. 4,505 ft.

Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ... S.D. 1,792 ft.

CASS COUNTY

Davis & Pigg's No. 1 Roy Bryan, SW cor. Roy Bryan 33-ac. tr., Albert H. Lattimer Sur. ... S.D. 2,860 ft.

C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ... S.D. 4,390 ft.

John C. Rogers' No. 1 I. E. Lanier, 575 ft. N, 979 ft. W, SE cor. Lanier 86 ac. in K. E. Welborn Sur. ... S.D. 2,280 ft.

John C. Rogers et al's No. 1 W. Q. Henderson, 3,100 ft. S, 3,100 ft. E, NW cor., Wm. Davis Sur. ... S.D. 960 ft.

HARRISON COUNTY

Lloyd Oil Corp.'s No. 1 E. S. Timmons, 150 ft. from N line to 250 ft. from E line of 105-ac. tr., Findley Sur. ... Dry and abnd. 4,195 ft.

M. E. Nash et al's No. 1 Henderson, G. L. Bledsoe Sur. ... S.D. 85 ft.

Ryan Cons. Pet. Corp.'s No. 1 J. M. Fuhr, 1,300 ft. N of NW cor. T. J. Copelin Sur., 1,675 ft. SW at right angles to NW SE line of O'Neal Sur. ... Derrick.

Triangle Drlg. Co.'s No. 1 Platt, 1,125 ft. W, 1,995 ft. N, SE cor. F. C. Barker Sur. ... Location.

MARION COUNTY

M. M. Howard's No. 1 Hussey, Chas. Lockhart Sur. ... Dry and aband. 2,810 ft.

Bannoch Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Gist, Claunch & Dodson) ... Reaming to bottom 3,996 ft.

Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S, most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ... S.D. 2,380 ft.

Purcell et al's No. 1 Coker, M. Reed Sur. ... S.D. 1,957 ft.

PANOLA COUNTY

Moses & Wallace's No. 1 Daniel, 600 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur. ... S.D. for D.S. 740 ft.

J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr. in James Hanks Sur. ... S.D. 3,055 ft.

SHELBY COUNTY

K. H. Francis' No. 1 John Mims, Mary Smith Sur. ... Rigged up on new hole.

General Minerals Co.'s No. 2-B Holt, Matthew Moore Sur. ... S.D. 3,951 ft.

General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ... Junked hole, skidded over.

Henry Moulding's No. 1 Frost Lbr. Co., NE cor. Frost Lbr. Co.'s 20-ac. tr., A. D. Fountain Sur. ... Rigged up on new hole.

McRoby et al's No. 1 Windham, Wm. Leach Sur., on Windham 296-ac. tr. ... S.D. 3,393 ft.

Prairie Creek Crude Co.'s No. 1 Ellington, 150 ft. N and 200 ft. W from SE cor. 42-a. tr. of J. Burleson Sur. ... Set 10-in. at 505 ft.

Ridgeway et al's No. 1 Polley, Dominguez Gonzales Sur., 3,130 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tr. ... Drlg. plug 1,937 ft.

Sedberry et al's No. 1 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ... S.D.; W.O. 1,768 ft.

Western World's No. 1 Foster, Billingsby-Jeremiah Bowlin Sur. ... S.D. 2,940 ft.

Wray & Dunbar's No. 1 C. A. Hayden, 600 ft. N and W SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ... S.D. for D.S. 2,054 ft.

Louisiana-Arkansas Proven Areas

NORTH LOUISIANA

CADDO PARISH—PINE ISLAND

Company, well, farm name, section and block—	Remarks:
Louana Oil & Gas Co.'s No. 1 Cushman, 1,380 ft. N, 600 ft. E, SW cor., Sec. 33-19-16	Set 10-in. at 100 ft.; drlg. 409 ft.

OUACHITA PARISH

Carbon Con.'s No. 7 Guthrie, Sec. 50-20n-4e, 5,263 ft. N, 7,475 ft. W of cors. of Secs. 25, 26 and 49, in Sec. 50 ... Location.

J. J. Potts, trustee's No. 2 Robertson-Reid, 531 ft. N, 825 ft. E, SW of Sec. 11-18-4e ... Set 6-in. 2,162 ft.

SABINE PARISH—ZWOLLE

Abbott & Rankin's No. 1 Nulton, 330 ft. S and E, NW cor. SE NE, Sec. 2-7-13 ... Rigged up and S.D.

Abbott & Rankin's No. 1 Towley, 330 ft. S and E, NW cor. SE NW, Sec. 1-7-13 ... Location.

Baird Bros.' No. 1 S. Martinez, 122 ft. E, 476 ft. S, NW cor. NE SW, Sec. 2-7-13 ... Dry and aband. 2,487 ft.

Baird Bros.' No. 2 S. S. Martinez, NW cor. NW SW Sec. 2-7-13 ... Rigging up.

Coates Pet. Co.'s No. 3 S. S. Martinez, 330 ft. S, 200 ft. E NW cor. SE NE Sec. 2-7-13 ... Rigging up.

Dengall O. & G. Co.'s No. 1-F Nulton, 330 ft. S and E, NW cor. SW NW, Sec. 2-7-13 ... Drlg. 1,650 ft.

Dengall O. & G. Co.'s No. 1-G Nulton, 350 ft. N, 330 ft. W, SE cor. NE NE, Sec. 3-7-13 ... W.O.S.R. 2,419 ft.

Dengall O. & G. Co.'s No. 2-G Nulton, 330 ft. N and E, SW cor. NE NE, Sec. 3-7-13 ... Set 6-in. at 2,049 ft.

Edwards & Hubien's No. 1 Martinez, 855 ft. E, 541 ft. N SW cor., Sec. 2-7-13 ... Location.

J. E. Grandstaff's No. 1 Johnson, S½ SW SW, Sec. 2-7-11 ... Set 6-in. 2,338 ft.

E. W. Gill's No. 1 Gray, 200 ft. S and W, NE cor. SW SW Sec. 3-7-13 ... Rigging up.

J. J. Hall's No. 4 Jacobs, 175 ft. W, 300 ft. N, SE cor. Sec. 1-7-11 ... Rigging up.

D. D. Holcomb's No. 2 Quayhaglew, 149 ft. N, 200 ft. E SW cor. SE SE, Sec. 11-7-11 ... Location.

H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW, Sec. 14-7-11 ... Derrick.

W. F. Lacey's No. 2 Hughes, 330 ft. S and E, NW cor. E½, Sec. 10-7-11 ... Set 10-in. at 102 ft.; drlg 650 ft.

W. F. Lacey's No. 2 Hughes, 40 ft. N, 106 ft. W, SE cor. NW SW, Sec. 11-7-11 ... S.D.W.O. 2,621 ft.

Lanier et al's No. 2 Newton, 400 ft. N, 330 ft. W, SE cor. NW, Sec. 3-7-13 ... Drlg. 1,400 ft.

Lion Oil Ref. Co.'s No. 1 LaRoux, 348 ft. N, 330 ft. E, SW cor. S½ NE SE, Sec. 3-7-13 ... W.O.S.R. 2,465 ft.

Lion Oil Ref. Co.'s No. 2 LaRoux, 384 ft. S and W, NE cor. SW SE, Sec. 3-7-13 ... Location.

Loring Oil Co.'s No. 18 Bowman-Hicks, 1,280 ft. S, 275 ft. E, NW cor. SW NW, Sec. 15-7-12 ... Arrang. to set 8⅝-in. at 5,272 ft.

Loring Oil Co.'s No. 1 Martinez, 330 ft. N and W SE cor. NW NE, Sec. 3-7-13 ... Set 10-in. at 100 ft.; drlg. 350 ft.

H. D. McDonald's No. 1 T. L. Andrin, 180 ft. E, 150 ft. N, SW cor. NW SE, Sec. 15-7-11 ... Derrick.

Frank Melat's No. 1 Davis, 175 ft. W, 225 ft. S, NE cor., Sec. 2-7-11 ... Rigging up.

Ben Merritt, trustee's No. 1-B Nulton, 570 ft. N, 250 ft. W, SE cor. SW NE, Sec. 3-7-13 ... Drlg. 1,150 ft.

C. D. Neff, tr.'s No. 1 Stoker, 212 ft. N and W, SE cor. NE SW, Sec. 10-7-11 ... Derrick.

Pelican Natural Gas Co.'s No. 14 La. Long Leaf Lbr. Co., 330 ft. S and E, NW cor. NW NE, Sec. 8-7-11 ... W.O.S.R. 2,404 ft.

Pelican Nat. Gas Co.'s No. 15 Louisiana Long Leaf Lbr. Co., 330 ft. N and W, SE cor. SE SW, Sec. 5-7-11 ... Drlg. 100 ft.

T. L. Phillips et al's No. 1 Haley, 330 ft. S and E, NW cor. NW SE, Sec. 6-7-12 ... Derrick.

F. G. Reid's No. 1-B McNeely, 400 ft. S, 110 ft. W, NE cor. NE NW, Sec. 14-7-11 ... W.O.S.R. 2,508 ft.

F. G. Reid's No. 4-A McNeely, 200 ft. S and W, NE cor. NW NE, Sec. 14-7-11 ... Set 10-in. at 100 ft.; drlg. 2,100 ft.

C. T. Ruffian's No. 2 Libby, 330 ft. S and E, NW cor. NE NW, Sec. 8-7-11 ... Derrick.

Howard Russell's No. 1 Porter, 680 ft. N, 230 ft. W, SE cor., Sec. 7-7-11 ... Tested dry 2,505 ft.

Sabine Prod. Co.'s No. 3 Pearce, Sec. 10-7-11, 330 ft. S and E, NW cor. SE NW ... S.D.; W.O. 2,699 ft.

Sabine Prod. Co.'s No. 2 Sabine Lbr. Co., 330 ft. S and E from center of Sec. 3-7-13 ... Rigging up.

Self & Kissick's No. 3 Moran, C W½ SE NE, Sec. 1-7-11 ... Rigging up.

Service Drlg. Co.'s No. 3-A Gardner, 138 ft. S, 134 ft. W, NE cor., Sec. 12-7-11 ... Set 10-in. at 102 ft.; set 6-in. at 2,416 ft.

Ben F. Smith's No. 1 fee, 330 ft. S, 400 ft. E, NW cor. Sec. 4-7-11 ... Arrng. to deepen, 2,301 ft.

W. S. Smith, trustee's No. 1 Hamilton, 330 ft. N and E, SW cor. NE NE, Sec. 32-8-11 ... Derrick.

F. E. Stancil's No. 1 Pouder, 273 ft. S, 397 ft. E, NW cor. NE SE, Sec. 10-7-11 ... S.D. 2,593 ft.

F. E. Stancil's No. 2 Pouder, 805 ft. N, 283 ft. E, SW cor. SE SE, Sec. 10-7-11 ... Location.

State Prod. Co.'s No. 1 Keazele, 150 ft. N and W, SE cor. NW SW, Sec. 3-7-13 ... Derrick.

State Prod. Co.'s No. 1 Sabine Lbr. Co., 365 ft. N, 100 ft. W SE cor. NW SW Sec. 3-7-13 ... Set 10-in. at 100 ft.; drlg. 1,350 ft.

The Texas Company's No. 2 Nabours, 576 ft. W, 237 ft. S NE cor. SE, Sec. 2-7-11 ... Rigging up.

E. M. Thompson's No. 1 Travis, 350 ft. N and E, SW cor. SE SW, Sec. 12-7-11 ... Set 4½-in. at 2,470 ft.

A. A. Trammell's No. 1 Hill, 330 ft. S and W, NE cor. SE SE, Sec. 32-8-11 ... Rigging up.

J. P. White's No. 1 Nulton, 330 ft. N and E, SW cor. NE NW, Sec. 1-7-13 ... Set 10-in. at 102 ft.

UNION PARISH

Southern Carbon Co.'s No. 60 fee, 36 ft. W, 482 ft. S, NE cor. NW, Sec. 20-20-4e ... Set 12-in. at 180 ft.; set 8-in. at 871 ft.

ARKANSAS

UNION COUNTY—URBANA

Marine Oil Co.'s No. 1 Winn est., 330 ft. S and E, NE cor. S½ NW, Sec. 11-18-13 ... T.A. 3,586 ft.

Marine Oil Co.'s No. 2-E Thompson, 330 ft. N, 330 ft. E, SW cor. NE NE, Sec. 10-18-13 ... Location.

Wilson & Chapman's No. 1-B Hadley, Sec. 3-18-13, 330 ft. S and W, NE cor. SE NW ... T.A. 2,545 ft.

Wilson & Chapman's No. 2 Emily King, Sec. 3-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE ... S.D. 1,730 ft.

EAST TEXAS

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ... S.D. 3,359 ft.

United Prod. Corp.'s No. 17 Steele, 1,320 ft. N, 660 ft. W, SE cor. C. D. Steele lse., in B. C. Jordan Sur. ... Location.

MISSISSIPPI

HINDS COUNTY

Joe A. Baker et al's No. 1 Hudson, 330 ft. W, 700 ft. S, NE cor. NW NE, Sec. 11-5n-1e ... Set 6⅝-in. at 2,446 ft.

Hensiee et al's No. 1 Warner, 200 ft. S and E NW cor. NE SE, Sec. 14-5n-1e ... Drlg. 1,985 ft.

Cleve Nooe et al's No. 1 Security Realty Co., 700 ft. E, 300 ft. S, NW cor. NE NW, Sec. 1-5n-1e ... Set 10-in. at 755 ft.; drlg. 1,850 ft.

McGuire et al's No. 1 Spring Lake, Sec. 11-5n-1e, 250 ft. N, 450 ft. W, from center of Sec. ... T.A. 2,487 ft.

RANKIN COUNTY

Meredith-Smith et al's No. 3 Strawder, 400 ft. S, 750 ft. W, NE cor., Sec. 12-5n-1e ... Set 6⅝-in. at 2,343 ft.

Wildcat Operations in Mississippi

CLARKE COUNTY

Company, well, farm name, section and block—	Remarks:
F. X. Gowans et al's No. 1 Elfring, SE NE, Sec. 13-1n-14e	S.D. 104 ft.

HINDS COUNTY

Atkins et al's No. 1 Crane Lawrence, Sec. 23-6n-1e, 300 ft. E, 132 ft. N, SW cor. NE SE ... Set 5½-in. 2,485 ft.

Miss.-Minn. Oil Co.'s No. 1 Edwards Land Co., Sec. 23-6n-4w, 1,200 ft. N and E from center of Sec. ... Reaming to bottom 3,050 ft.

LAMAR COUNTY

Stauffer & Kouri's No. 1 Bond, SE NE, Sec. 18-2n-14w ... Drlg. 2,110 ft.

LOWNDES COUNTY

Lowndes County Oil & Dev. Co.'s No. 1 Carr est., Sec. 34-17-16e, 1,320 ft. E, 330 ft. S, NW cor. Sec. ... Drlg. 2,100 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 22-15s-17w ... Drlg. 1,000 ft.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE, Sec. 25-6n-11e ... S.D. 1,520 ft.

NOXUBEE COUNTY

Thompson & Donohue's No. 1 Donohue, Sec. 25-16n-17e ... S.D. 1,735 ft.

RANKIN COUNTY

James Alexander, tr.'s No. 1 Holmes, 445 ft. E, 375 ft. N, SW cor. NW, Sec. 31-6n-2e ... Set 10-in. at 718 ft.; drlg 1,990 ft.

Ferguson Fuller et al's No. 1 Ivey, 120 ft. W and S NE cor. NW, Sec. 13-5n-1e ... Set 8⅛-in. at 734 ft.; drlg. 2,115 ft.

Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e. Derrick.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-3-3 ... S.D. 750 ft.

Wildcat Operations in Alabama

LAMAR COUNTY

(Cable tools)

Company, well, farm name, section and block—	Remarks:
DeSoto O. & G. Corp.'s No. 1 Gardner, NW NW, Sec. 22-15s-16w	Testing 2,680 ft.

MOBILE COUNTY

Ohio Oil Co.'s No. 1 James Bethel, 330 ft. N and E, 3,300 ft. E of NW cor. SW SE, Sec. 34-3s-2w ... Drlg. 3,000 ft.

J. C. Prine et al's No. 1 M.&O.R.R., Sec. 33-2n-4w ... Drlg. 1,670 ft.

WASHINGTON COUNTY

South Alabama O. & G. Co.'s No. 1 Wilson, Sec. 26-7n-1w. Rigging up.

MARKET RECORD OF OIL SECURITIES

NEW YORK, July 18.—A better undertone was in evidence in the oil group during the week, and sentiment was more bullish, reflecting the improved statistical position of the industry and the expectation of better earning reports for the second quarter.

Sluggishness in other groups, however, tended to hold down the oils, and turnover was relatively narrow, with no pronounced price gains recorded for the period. The market seems well established midway between the year's lows and highs, and is marking time pending a definite trend in the general securities field.

Humble Oil

According to the Wall Street Journal, "It is understood that Humble Oil during the first half of the current year covered its full year's dividends of $2 a share. This means a net profit after all deductions, including depreciation and depletion, of more than $5,949,000."

S.O.N.J.

Directors of the Standard Oil Co. of New Jersey have fixed a price of $23.30 per share on stock offered employes under its employe stock acquisition plan, this price being applicable from July 1 to December 31, inclusive. This is the lowest price at which the company has ever offered stock to employes, and compares with a price of $30.50 a share for the first half of 1932.

Under the terms of the plan the company fixes the price for ensuing half-yearly periods by computing the average market price of company shares for the three months preceding the opening of the new half year. The directors, at their discretion, may set the price as much as 10 per cent under market values.

Union Oil Associates

Union Oil Associates has declared a quarterly dividend of 25 cents a share on the $25 par common stock, payable August 10 to holders of record July 18. It paid 35 cents per share May 10.

Royal Dutch

The current dividend on the American shares of Royal Dutch Co., payable August 5 to stockholders of record July 22, is equivalent to 80½ cents per share, and is payable at the Chase National Bank, New York City.

S. O. N. J.—Pan American

Standard Oil Co. of New Jersey, which now owns 96 per cent of the outstanding capital stock of Pan American Foreign Corp., has moved to obtain 100 per cent control. The Jersey company has made an offer to minority Class A and Class B stockholders on the following basis: Cash of $14.65 a share and 5,435-10,000ths of a share of Standard Oil Co. of New Jersey capital stock for each share of Pan American Foreign. To take advantage of the offer, stockholders must deposit their certificates with the corporate trust department of the Guaranty Trust Co. of New York before noon on August 15. No fractional shares of Standard Oil Co. of New Jersey will be issued under the offer. Holders of Pan American Foreign stock otherwise entitled to fractional shares of Standard of New Jersey may, at their option, receive cash for each fractional share on the basis of $26.125 a full share of Jersey stock, or they may purchase additional fractional shares on the same basis to make a full share.

Combined Class A and Class B shares of Pan American Foreign total 3,417,082 shares. The minority interest amounts to 136,683 shares of combined Class A and B stock.

Salt Creek Producers

Salt Creek Producers Association has declared the regular quarterly dividend of 25 cents per share, payable August 1 to stock of record July 15.

Gilmore Oil

Gilmore Oil Co., Ltd., has declared a quarterly dividend of 20 cents per share on the no-par common, payable July 31 to stock of record July 15. This compares with 30 cents per share paid for the previous quarter.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb based on closing quotations for Wednesday, was as follows:

Jan. 6	12.69	Apr. 13	11.31
Jan. 13	13.63	Apr. 20	12.11
Jan. 20	13.14	Apr. 27	12.46
Jan. 27	12.79	May 4	11.73
Feb. 3	13.19	May 11	13.23
Feb. 10	12.02	May 18	12.57
Feb. 17	13.28	May 25	12.44
Feb. 24	13.45	June 1	11.34
Mar. 2	13.61	June 8	11.39
Mar. 9	14.38	June 15	11.86
Mar. 16	13.00	June 22	11.41
Mar. 23	13.02	June 29	12.09
Mar. 30	13.85	July 6	11.75
Apr. 6	12.12	July 13	12.19

Consolidated Oil

Consolidated Oil Corp. has declared the regular quarterly dividend of $2 per share on the preferred, payable August 15 to stock of record August 1.

Independent Oils on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 9)

1932 High	1932 Low	Week ended July 9 Sales	Week ended July 9 High	Week ended July 9 Low	Close July 13	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
¾	⅛	No sales	..	..	..	American Maracaibo	(sh)	700,000	N.P.	....	.....	8⅝	1⅛	4½	½	1¾	¼
2¾	¾	No sales	..	..	..	Arkansas Natural Gas	(sh)	4,084,225	N.P.	....	.....	26	3¾	16¾	4⅝	6½	1⅞
2⅝	½	700	¾	⅝	⅝	Arkansas Natural Gas "A"	(sh)	3,522,521	N.P.	....	.....	24¾	6½	16⅝	4⅝	6¾	1⅞
5½	2	No sales	..	..	..	Arkansas Natural Gas pfd.	(sh)	2,193,000	$10	....	4- 1-32	9	4	8½	6¼	7	3⅞
9¾	7	No sales	..	..	..	British American Oil Corp.	(sh)	2,622,642	N.P.	20cQ	7- 2-32	62	7⅞	23	13⅜	16⅞	6¼
⅝	¼	No sales	..	..	..	Carib Syndicate		$131,250	25c	....	.....	4⅞	1	2¾	⅝	2⅜	¼
6⅞	1¼	25,400	2⅛	2	2⅛	Cities Service	(sh)	36,418,721	N.P.	30cA§	6- 1-32	68½	20	44¼	13	20¾	5
53⅜	10	1,400	13⅞	11	12	Cities Service pfd.	(sh)	1,125,931	N.P.	50cM	6- 1-31	98¾	84	93⅞	78¼	84¾	35⅝
⅛	1/16	No sales	..	..	..	Colombia Syndicate		3,250,000	N.P.	....	.....	..	..	21	3⅜	7⅛	1
1⅞	½	200	⅝	½	..	Columbia Oil & Gasoline v.t.c.	(sh)	$2,000,000	$1	....	.....	2	½	⅝	⅛	½	1/16
⅝	¼	No sales	..	..	..	Colon Oil	(sh)	2,200,000	N.P.	....	.....	15	3⅞	8¼	1⅛	3⅛	¼
1⅜	1	No sales	..	..	..	Consolidated Royalty Oil Co.		$5,527,880	$10	5cQ	4-25-32	11½	2½	5⅞	2	2¾	1
1	⅛	No sales	..	..	..	Cosden Oil	(sh)	323,950	N.P.	....	.....	135	42	74¾	1¼	3¾	⅜
2½	1⅝	100	2	2	..	Darby Petroleum	(sh)	609,696	N.P.	....	10-15-30	26	6½	21¾	4¼	5	1¾
2⅛	1	100	1⅝	1⅝	1⅝	Derby Oil & Refining	(sh)	500,000	N.P.	....	.....	11	2	11	2	6	1½
24½	10½	No sales	..	..	..	Derby Oil & Refining pfd.		48,500	N.P.	....	.....	44	20¾	60	30	40⅛	25
35⅞	23	1,200	27	25	..	Gulf Oil Corp.	(sh)	4,504,921	$25	....	10- 1-31	209	115	166⅞	58½	75½	25⅜
4½	2¾	No sales	..	..	..	Indian Terr. Illum. Oil "B"	(sh)	7,090,037	N.P.	.....	.....	..	..	53½	12⅝	16⅞	5
¼	1/16	800	⅛	1/16	..	Intercontinental Petroleum		$5,682,000	$5	....	.....	2⅞	⅜	1¾	⅝	⅝	⅛
⅝	⅜	100	½	½	..	Kirby Petroleum	(sh)	750,000	N.P.	....	.....	3⅝	1¼	3	⅞	1⅞	¼
½	⅛	No sales	..	..	..	Leonard Oil & Development		$50,000,000	$25	....	.....	14⅞	2½	5	¾	2	½
⅞	½	600	½	½	..	La. Land & Exp.	(sh)	3,000,000	N.P.	....	.....	6⅛	1	4⅜	½	1½	¼
2⅜	⅞	200	1½	1½	..	Lion Oil & Refining	(sh)	250,000	N.P.	....	10-27-30	38⅞	18	29	4⅞	6¾	1½
9¼	3⅜	700	3¾	3½	..	Lone Star Gas	(sh)	5,000,000	N.P.	16cQ‡	6-30-32	67⅞	28	55⅞	19⅝	25	5½
⅛	1/16	No sales	..	..	..	Magdalena Syndicate	(sh)	850,000	$1	....	.....	1¼	½	½	⅛	½	¼
6¼	3⅜	No sales	..	..	..	Margay Oil Corp.		160,000	N.P.	25cQ	4-11-32	38½	14	16	3	5	1⅞
5¼	1⅝	300	1⅝	1⅝	..	Memphis Natural Gas	(sh)	920,000	N.P.	15cQ	4-15-32	24	8¼	22¼	7½	12⅛	4½
2	1½	No sales	..	..	..	Mexico-Ohio Oil Co.		500,000	N.P.	....	.....	6⅜	2¼	7½	1¾	4⅞	1½
⅛	⅛	No sales	..	..	..	Mountain & Gulf		$4,000,000	$1	....	4-15-31	1½	½	¾	⅜	½	⅛
3¼	2¼	500	3⅛	3	3¼	Mountain Producers		$1,682,182	$10	20cQ	4- 1-32	22⅞	7	12⅛	3¾	5⅞	2
13½	8	200	10	9¾	..	National Fuel Gas	(sh)	3,810,183	N.P.	25cQ	4-15-32	43⅞	23	41⅜	19⅜	26½	9¾
¾	⅜	100	⅝	⅝	..	New Bradford Oil		$7,224,186	$5	....	4-15-31	5	2½	3½	1⅜	1½	½
1/16	1/16	No sales	..	..	..	New Mexico and Arizona		$1,000,000	$1	....	.....	9⅜	2¼	7¼	1½	3	¾
1	⅝	No sales	..	..	..	North Central Texas	(sh)	262,446	$5	....	9- 2-30	18½	6⅛	11¼	2⅛	3¼	⅝
⅜	1/16	200	1/16	1/16	..	North European Oil	(sh)	1,372,391	N.P.	....	.....	..	..	6¼	⅝	2⅛	¼
6¼	3	No sales	..	..	..	Pacific Western Oil	(sh)	1,000,000	N.P.	....	.....	26⅝	12⅛	19½	5½	15	2⅞
⅛	1/16	No sales	..	..	..	Pandem	(sh)	1,291,493	N.P.	....	.....	3½	½	2½	¼	½	1/16
½	1/16	700	⅛	⅛	..	Pantepec Oil	(sh)	1,595,500	N.P.	....	.....	10½	1⅞	4⅜	⅞	2	⅜
7¾	6	500	6¼	6¼	..	Plymouth Oil	(sh)	1,050,000	$5	25cQ	7- 1-32	37	22	27½	16¼	19	6
½	1/16	No sales	..	..	..	Reiter-Foster	(sh)	388,584	N.P.	....	12- 2-29	8½	1⅛	5⅜	1	3⅛	¼
1	⅛	No sales	..	..	..	Richfield Oil pfd. x.w.	(sh)	399,950	$25	....	.....	31½	22	23½	6½	11	¼
1¼	⅝	100	⅞	⅞	⅞	Ryan Consolidated	(sh)	296,931	N.P.	....	.....	11	2	8⅝	2	3	⅝
½	⅛	No sales	..	..	..	Salt Creek Consolidated	(sh)	1,286,300	$10	....	4- 1-31	5⅞	1⅞	2½	½	1⅜	⅛
4⅛	2⅞	400	3⅝	3½	4⅛	Salt Creek Producers	(sh)	1,496,859	$10	25c	8- 1-32	25⅞	9	15⅛	5¼	7¾	2⅜
½	⅛	No sales	..	..	..	Sunray Oil	(sh)	1,163,185	$5	....	4-15-31	12	5⅝	10	2	5¼	¼
6⅝	4½	100	5	5	..	Texon Oil & Land	(sh)	936,036	N.P.	25c	6-30-32	23	7⅛	19½	8	12⅞	2½
½	⅛	No sales	..	..	..	Venesuelan Petroleum	(sh)	755,000	$5	....	2-15-30	6½	1¾	4½	⅜	1⅞	⅛
2	1⅛	No sales	..	..	..	Woodley Petroleum		$500,000	$1	....	3-31-29	9½	2	5	½	3½	1⅛
⅝	⅛	300	½	⅜	⅜	Y Oil & Gas		100,000	N.P.	....	.....	2⅞	½	2½	⅝	2¼	¼

*Ex-dividend. ‡Payable in stock. §Paid in lieu of regular cash dividend of 2 per cent.

MC ELDOWNEY NEW DIRECTOR

NEW YORK, July 18.—Elliott McEldowney, for the past seven years associated with the advertising department of Henry L. Doherty & Co., and the Cities Service Co., has been appointed director of advertising and news for the two companies. Mr. McEldowney succeeds Frank LeRoy Blanchard, who is retiring, and whose assistant he has been for some years past.

SOVIET OUTPUT

NEW YORK, July 18.—Production of petroleum in Soviet Russia during the first six months of 1932 totaled 11,250,000 tons, an increase of 7 per cent over the first half of 1931, according to reports from Moscow. A total of 10,500,000 bbls. was refined during the first half of the year, an increase of more than 15 per cent.

TRETOLITE SUIT DISMISSED

A suit brought by the Dehydro Co. of Tulsa, in the Federal Court, Northern District, Tulsa, against the Tretolite Co., St. Louis, Mo., claiming unfair competition and asking $100,000 damages, was dismissed by the court on the second day of the trial after the introduction of testimony by both sides. The court in dismissing the suit against the Tretolite Co. placed the costs of the action on the Dehydro Co.

Standard Oil Stocks on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 9)

1932 High	1932 Low	Week ended July 9 Sales	Week ended July 9 High	Week ended July 9 Low	Close July 13	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
6¼	6	No sales ..	..	..	..	Borne Scrymser		$1,000,000	$25	....	10-15-30	46½	25	25	11¼	16	6
35	17½	200	18	17½	..	Buckeye Pipe Line		$10,000,000	$50	$1Q	6-15-32	74½	55	69	39⅞	56	30
90	53	No sales ..	..	..	..	Chesebrough Mfg.		$3,000,000	$25	$1Q‡	6-30-32	210	130	184⅞	104¼	129½	75
2½	1¾	5,600	2¼	2⅛	..	Creole Petroleum	(sh)	5,977,872	N.P.	....	.....	11¾	5⅜	7⅞	3	3⅞	1⅝
35	18	No sales ..	..	..	..	Eureka Pipe Line		$5,000,000	$100	$1Q	8- 1-32	70½	40	54¾	26	36	19
49	35⅝	400	38	37	39	Humble Oil & Refining		$74,103,300	$25	50cQ	7- 1-32	128	74⅛	119	57¼	72	44¼
9½	6¼	1,500	7¼	7	7¼	Imperial Oil of Canada	(sh)	26,557,496	N.P.	12½cQ	3- 1-32	41	22	30	15	18¼	7⅜
7½	2⅞	200	3	3	..	Indiana Pipe Line		$3,000,000	$10	25cQ	2-15-32	41⅞	26	41	14½	21⅛	5½
10⅝	8	2,300	9	8¾	9¼	International Petroleum	(sh)	14,247,088	N.P.	25cQ	3-15-32	30⅜	15	24	11⅜	15½	7⅝
10½	6	100	6¼	6¼	..	National Transit		$6,362,500	$12.50	25cQ	6-15-32	25⅛	10⅛	22⅜	11½	17½	5
4	2¼	No sales ..	..	..	..	New York Transit		$500,000	$5	10cQ	4-15-32	17½	10	21⅜	10⅛	14½	5⅜
4⅜	3⅛	100	3½	3½	..	Northern Pipe Line		$1,200,000	$10	25c	1- 2-32	63	41	54	26¼	35½	20
6⅜	4	No sales ..	..	..	..	Penn Mex Fuel		$10,000,000	$25	50c	5-25-32	44½	20	32	12	15½	5½
14½	9⅝	100	12⅝	12⅝	..	South Penn Oil		$30,000,000	$25	25cQ	6-30-32	60¼	35⅛	45⅞	16⅛	23⅞	9¼
10	5⅛	No sales ..	..	..	..	Southern Pipe Line		$1,000,000	$10	35cQ	6- 1-32	22½	13	20⅞	8⅜	17	7
37	27	No sales ..	..	..	..	Southwest Pennsylvania Pipe Line	....	$1,750,000	$50	$1Q	7- 1-32	70	60	64	32	42½	25
19¼	13⅛	16,400	18⅞	18	19	Standard Oil of Indiana		$424,914,895	$25	25cQ	6-15-32	63	45	59⅞	30	38½	13½
15⅞	8⅝	1,200	9⅝	9	9⅞	Standard Oil of Kentucky		$25,654,516	$10	30cQ	6-30-32	46⅞	29	40½	18⅝	23⅝	12⅛
19	10¼	100	10¼	10¼	..	Standard Oil of Nebraska		$4,770,550	$25	25cQ	6-21-32	50¼	40	48⅞	34⅝	36½	16
28⅛	15½	250	21	21	..	Standard Oil of Ohio		$18,811,675	$25	62½cQ	4- 1-32	129	60	108½	43¼	62½	23
2	1⅝	No sales ..	..	..	..	Swan-Finch Co.	(sh)	34,480	$25	....	1-15-29	18	10	10	4	4½	1

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus 50 cents extra.

Transactions in Oil Shares on New York Stock Exchange

Quotations Compiled by Francis, Bro. & Co., Members of the New York Stock Exchange and Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 9)

1932 High	1932 Low	Week ended July 9 Sales	Week ended July 9 High	Week ended July 9 Low	Close July 13	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
16⅝	12	700	15	14½	15¼	Amerada Corp.	(sh)	922,075	P.N.	50cQ	1-30-32	42⅝	17½	31½	16½	23	11¼
4	¼	No sales ..	..	..	..	American Republics Corp.	(sh)	209,180	N.P.	....	12-31-30	64¾	12½	37	5⅛	12⅜	1¼
9¾	6½	10	6½	6½	..	Associated Oil		$57,260,300	$25	25cQ	4-15-32	47¼	34½	51	30	31	8¾
12⅞	8⅝	4,200	11⅜	10⅜	11½	Atlantic Refining		$67,416,050	$25	25cQ	3-15-32	77⅜	30	51⅜	16⅝	23⅝	8⅝
5⅞	3⅝	2,900	4¼	4	4⅜	Barnsdall Corp. A		$11,293,895	$5	....	5-11-31	49⅛	20	34	8⅝	14½	4
16⅛	4¼	22,864	6⅝	5⅝	6⅜	Columbia Gas & El.	(sh)	11,684,220	N.P.	25cQ	5-15-32	140	52	87	30⅝	45⅝	11⅝
11	9	No sales ..	..	..	..	Colonial Beacon Oil	(sh)	1,444,970	N.P.	....	12-22-22	32⅞	12½	20⅜	8¾	10½	7½
7⅛	4	27,000	5½	5	5½	Consolidated Oil Corp.	(sh)	14,190,000	N.P.	....	.....	..	..	..	..	..	..
7	3⅝	6,800	5	4¼	5	Continental Oil of Delaware	(sh)	4,741,554	N.P.	....	12-15-27	47⅞	18	30½	7¾	12	5
35¾	9½	1,300	11	10	11⅜	General American Tank Car	(sh)	751,638	N.P.	$1Q	1- 1-32	123¾	75	111⅞	53⅛	73⅛	28
15½	4¾	700	7½	6¼	7	General Asphalt	(sh)	413,333	N.P.	25cQ	6-15-32	94¾	42¼	71½	22⅝	47	9⅝
24⅜	8¾	500	10½	10	11½	Houston Oil		$24,968,600	$100	....	10-17-30	109	26	116⅞	29¼	68½	15⅝
1⅝	1	700	1⅛	1⅛	..	Indian Refining		$12,564,070	$10	....	10- 1-30	53	13⅛	17	2	4⅝	1⅛
1⅝	½	No sales ..	..	..	..	Louisiana Oil Refining	(sh)	1,190,063	N.P.	....	.....	18	7	12	3½	4½	1
1	⅜	No sales ..	..	..	..	Maracaibo Oil	(sh)	330,000	N.P.	....	.....	18½	5⅛	10⅜	1⅜	3⅜	½
6½	3¾	2,200	4⅝	4⅛	4⅜	Mid-Continent Petroleum	(sh)	1,857,912	N.P.	....	2-16-31	39⅞	22⅛	32	11	16⅝	5
9¼	3½	100	4½	4½	..	National Supply of Delaware	(sh)	390,879	$50	....	5-15-31	144	98½	124¾	60	70¼	5
8½	5	4,100	7¼	6¾	7½	Ohio Oil	(sh)	6,648,052	N.P.	20cQ	6-15-32	79⅞	64¼	32	16	19½	5⅛
7⅞	7⅞	No sales ..	..	..	..	Pan American P. & T.	(sh)	1,000,000	$5	25cQ	6-30-32	69	40½	46½	42	35⅛	20
8¼	7⅞	No sales ..	..	..	..	Pan American P. & T. "B"	(sh)	2,474,288	$5	25cQ	6-30-32	69¼	40½	67¼	30	36½	18
1¼	½	100	½	½	..	Panhandle P. & R.	(sh)	199,370	N.P.	....	.....	15¼	3	12¾	1¾	4¼	⅝
6½	2	6,700	3¾	3⅜	4	Phillips Petroleum	(sh)	2,593,075	N.P.	....	1- 2-31	47	24¼	44⅝	11½	16⅝	4
½	¼	100	¼	¼	..	Pierce Oil Corp.		$29,622,831	$25	....	.....	3⅜	1	2½	½	1½	¼
1⅛	½	700	⅝	⅝	¾	Pierce Petroleum	(sh)	2,500,000	N.P.	....	2-16-31	5⅞	½	7⅛	1⅛	3⅝	½
7⅛	3½	No sales ..	..	..	..	Prairie Oil & Gas		$61,035,800	$25	....	3-31-31	65⅜	40½	54	11¼	20⅜	4⅛
9⅜	5½	300	7¾	7⅛	..	Prairie Pipe Line		$101,250,000	$25	....	6-30-31	65	45	60	16⅝	26½	5⅞
1⅝	⅛	200	⅛	⅛	..	Producers & Refiners		$37,438,950	$50	....	9-15-23	25⅞	4	11⅞	1	6	1
9⅜	1	50	2½	2½	2½	Producers & Refiners pfd.		$2,845,350	$50	....	5- 4-25	46¾	25½	40	11½	16	3
5⅛	2⅞	1,400	3⅝	3¼	3⅝	Pure Oil		$75,959,250	$25	....	9- 1-30	30¾	20	27¼	7⅝	11⅞	3¼
¾	¼	800	⅜	⅜	½	Richfield Oil (new)		$52,410,875	N.P.	....	.....	49⅝	20	9¾	4⅛	6⅜	⅜
2½	1¾	600	2¼	2⅛	..	Rio Grande Oil	(sh)	1,236,270	N.P.	....	7-25-30	42½	15	25¾	5	10¼	1¼
23	12⅛	9,100	18⅝	17¼	17¾	Royal Dutch N. Y.	(sh)	611,303	....	80½cf†	8- 5-32	64	43⅛	56½	36⅞	42⅝	13
9⅞	6⅝	4,000	8	7¼	8¼	Seaboard Oil of Delaware	(sh)	1,244,383	$4	10cQ	6-15-32	59⅜	8¼	37	9¾	20¾	5½
15⅝	8	No sales ..	..	..	..	Shell Transport & Trading Co.		£23,985,000	£1	53cf†	7-22-32	51½	40⅝	48⅜	26	34	5
4⅛	2½	12,800	3⅞	3	3⅝	Shell Union Oil	(sh)	13,066,497	N.P.	....	6-30-30	31¾	19	25½	5¼	10¼	2½
31	18	1,400	28	23½	28⅝	Shell Union Oil pfd.	(sh)	400,000	$100	....	7- 1-31	108¼	93	106¼	55	78	15
6	3¼	9,000	5	4	5	Simms Petroleum	(sh)	600,000	$20	....	9-15-30	40⅛	15	37	5⅝	11	3½
4½	2½	600	3⅛	2⅞	3¼	Skelly Oil		$27,441,250	$25	....	12-15-30	40½	28	12	10⅛	12⅞	2
19	12	500	18¼	18	18¾	Skelly Oil pfd.	(sh)	119,800	$100	....	5- 1-31	..	..	99¾	42	62	10
10¾	5¼	22,400	7⅛	6½	7¾	Socony-Vacuum		$793,613,588	$25	20cQ	6-15-32	..	..	106⅜	98	106	87⅛
91½	81	No sales ..	..	..	..	Standard Oil Export pfd.	(sh)	764,885	$100	$2.50SA.	6-30-32	..	..	..	..	21	8⅜
27¼	15⅛	8,300	19¼	17¾	19⅞	Standard Oil of California	(sh)	13,102,900	N.P.	50cQ	6-15-32	81⅞	51½	75	42½	51¾	23⅛
12⅜	7	1,300	7⅝	7	..	Standard Oil of Kansas		$8,000,000	$25	....	3-16-31	33¾	18	49	14⅜	19	7¾
31½	19⅞	45,700	25¼	23½	26⅛	Standard Oil of New Jersey		$637,961,700	$25	25cQ‡	6-15-32	83	49	84⅞	32½	52½	26
32	24¾	900	27⅛	26	28	Sun Oil	(sh)	1,416,869	N.P.	25cQ	6-15-32	68⅜	55	70	39	45¼	26⅜
⅝	¼	100	⅜	⅜	..	Superior Oil Corp.	(sh)	766,979	N.P.	....	12-20-30	24	5¼	9⅜	¾	1⅜	¼
13⅞	9¼	6,000	10	9½	10⅜	The Texas Corporation		$246,204,900	$25	25cQ	7- 1-32	71⅞	50	60½	28¼	36¼	9⅞
2⅜	1½	900	1⅞	1¾	2⅛	Texas Pacific Coal & Oil Co.		$9,304,890	$10	....	12-31-29	23⅞	9½	14½	4	6½	1⅞
9	5	100	6	6	..	Tide Water Oil	(sh)	2,191,759	N.P.	25cQ	6-30-32	40	14	31	13	18	9⅞
41	30	No sales ..	..	..	..	Tide Water Oil pfd.	(sh)	199,446	N.P.	$1.25Q	8-15-32	97½	85⅛	94⅞	71	83	30
3½	2	4,800	2½	2¼	2½	Tide Water Associated	(sh)	5,560,424	N.P.	....	2-16-31	23½	10	17¾	5⅞	9	2⅛
30⅜	20	300	28	27½	29	Tide Water Associated pfd.		$73,284,500	....	$1.50Q	7- 1-32	90⅞	74⅛	89¾	55	68	20½
13⅞	8	4,400	9⅛	8	9⅞	Union Oil of California		$104,342,375	$25	35cQ	2-10-32	57	42⅛	50	10⅛	26⅝	11
19¼	11¾	200	12	12	..	Union Tank Car	(sh)	1,254,048	N.P.	35cQ	6- 1-32	163¾	121⅞	38½	23	25¼	16
1½	½	200	⅝	½	⅝	Warner-Quinlan	(sh)	632,948	N.P.	....	7- 1-30	42⅞	15	27	4¼	7⅜	⅞
5¾	2¾	3,300	4¼	3½	3⅝	Wilcox Oil & Gas	(sh)	428,967	$5	...	5-10-28	29¾	12⅞	21	6½	9⅜	2¾

*Ex-dividend. †Interim dividend for 1931. ‡Plus extra dividend of 25 cents.

In comparing highs and lows for the several years in the three tables, it will be necessary to take into consideration cases where there have been stock split-ups.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas, and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

ALTITUDE AND ANTIKNOCK FUEL

I must take exception to your conclusion under Knock Rating and High Altitude, June 23, in which you state that in considering everything that influenced knock, the outside atmospheric conditions could have little or no influence on the combustion inside the cylinder, and therefore high octane gasoline should be used the same as in other regions.—E. G. S.

The elevation under discussion was approximately 4,000 feet; however, I am willing to admit that my conclusion may have been too broad. E.G.S. says further: "Antiknock fuels were not needed on low compression motors. When the compression is raised the knock tendency increases. The position of the throttle has everything to do with the compression in the cylinder. No high compression motor knocks on a fifty octane gasoline when it is idling. The cylinder receives so little charge that there is no compression to speak of, but it is when the throttle is full open that the full charge of gas is inhaled into the cylinder and the knock occurs if the octane rating is low. Now this makes the altitude matter clear. The atmosphere is rare, the cylinder cannot take in enough gas from the rarified atmosphere to compress to the knocking compression; therefore, a high compression motor is a low compression motor in high altitudes. I doubt if all knock disappears at 4,000 feet, but I am sure that no knock on present motors will occur with a 45 octane gasoline at 6,000 feet. It is not necessary to use antiknock gasoline of a high octane rating in higher elevations. The compression decreases in accordance with the law of gas volumes and exactly in the same proportions as the atmospheric pressure changes. To reverse the picture an engine built to operate normally at 8,000 feet would perform as if it were fed by a supercharger at sea level."

While giving this subject further study several experts were consulted and the material below is taken from this correspondence. A representative laboratory states: "Data on hand, obtained experimentally, indicate that barometric pressure decreases in the order of 0.11 inch of mercury per 100 feet rise in altitude with temperature and humidity taken into consideration. With this as a basis, barometric pressures for 5,000 and 10,000-foot altitudes were calculated with a sea level barometer reading of 29.92 inches of mercury. These were:

Altitudes—	Pressure lbs./sq. in.
Sea level	14.64
5,000 feet	11.95
10,000 feet	9.25

Compression pressures for 6-1 and 5-1 compression ratio engines were calculated on the basis of the theoretical Otto cycle for each of the above altitudes. The relation at maximum pressures is shown in the table.

Compression Pressure, Lbs./Sq. Inch

Comp. ratio	Sea level	5,000 ft.	10,000 ft.
6-1	180	146	112
5-1	118	96	76

It is difficult, if not impossible to make a general statement covering the octane number requirement of the commercial automobiles operating at 6,000 or other altitudes, in as much as some manufacturers supply high altitude pistons, or high compression heads for high altitude operation. The fuel requirements of these specially equipped engines would be comparable to those of lower compression engines operating at a lower altitude. For engines operating at various altitudes, including sea level, the octane number requirement would be determined by sea level performance, because the highest compression pressures are developed while the engine is operating on the lowest level.

The pressure at 5,000 feet acts to reduce compression pressure by about 15 per cent, approximately one compression ratio, which is about the difference between a non-premium gasoline and the Ethyl standard. An engine just knocking at 5,000 feet would knock badly at sea level, other conditions equal. The general tendency of low-speed supercharging is to reduce detonation. Engines knocking under normal conditions do not detonate when supercharged from 4 to 5 pounds, probably because of improved distribution at lower mixing temperatures. Up to the limit of compression pressures obtainable at higher altitudes the behavior would probably be similar to that at low altitudes with less throttle opening; but, since most of the knocking at low altitudes is only when the throttle is nearly wide open and the compression pressure near the maximum, the fact that one could obtain a lower maximum compression pressure at high altitudes, with wider open throttle, would markedly decrease knocking.

Another authority says: The general statement from E.G.S. is substantially correct. The tendency to knock in an engine depends directly among other things upon the final pressure at the end of the compression stroke. This may be changed either by varying the throttle opening or by varying the altitude. The difference between performance at sea level and at 4,000 feet altitude with the same engine under the same operating conditions would be distinctly noticeable. You are probably correct, however, in assuming that other variables, such as the engine jacket temperature and the speed of operation, may have effects large enough to mask the effect of altitude in some cases up to perhaps 4,000 feet. At greater elevations the effect of altitude will be increasingly important and gasolines of rather poor knock characteristics could undoubtedly be used in normal engines at altitudes of from 5,000 to 10,000 feet. On the other hand, if the engines were to be used continuously at high altitudes, it might be desirable to increase the compression ratio so that they would require substantially the same grades of fuel as are used at sea level.

DETERMINING THE BASE OF PETROLEUM

I find reference in the literature to the Bureau of Mines Method for determining the base of a crude petroleum. Can you supply the procedure for this test? Are there other methods that do not entail distillation under reduced pressure?—E. C. H.

The Bureau of Mines method for determining the base of a crude oil is described in U. S. Department of Commerce, Bureau of Mines, Bull. 291, by Smith and Lane, 1928, page 8, as follows:

"In describing a crude oil reference is often made to its supposed 'base.' The writers have talked with many oil producers and refiners and have come to the conclusion that the word 'base' is used much as it is in pharmaceutical work. For example, the 'base' or 'basis' of an ointment or salve is the fatty material (lard, petrolatum, or lanolin) used as a vehicle or carrier for the active medicinal principles. Apparently many of the pioneers in the petroleum industry considered crude oil similar in nature to these medicinal products, in that it consisted of a semisolid nonvolatile 'base' and a volatile portion that could be distilled off to make gasoline, kerosene, and other products. Many crude oils when chilled slowly deposit a waxy material (paraffin), and this fact may have been one reason why such oils were spoken of as having a 'paraffin base.' Almost all of the oils first discovered in this country happened to be of this kind, and it was only when the oil industry developed in California and along the Gulf Coast that oils were found which contained no wax but apparently did contain asphaltic material. These oils were accordingly known as 'asphalt base' oils. The use of this term, however, seems unfortunate, as better grade crudes of this type contain little if any asphalt. This fact has apparently been recognized in the petroleum industry, and the more descriptive term 'naphthene base' is frequently used in place of the term 'asphalt base.'

"Oils that can not be assigned to either the 'paraffin' or 'naphthene' groups are usually classed as 'intermediate base' crudes. These 'intermediate base' oils in general resemble 'paraffin base' crudes much more than they do 'naphthene base' crudes. However, the writers believe that there is a fourth type that resembles a true naphthene base crude, except that it contains a small amount of waxy material. To distinguish this type of oil from an intermediate base oil it has been called 'hybrid base' crude.

"Many methods may be used to determine the 'base' of a crude oil from the analytical data. For example, a 'gravity' curve can be prepared from the analysis and compared with a set of typical curves. A simpler method is the following:

"1. Note the A.P.I. gravity of 'key fraction No. 1,' that is, the fraction distilling between 250° and 275° C. (482° and 527° F.) at atmospheric pressure. If this gravity is 40° A.P.I. or lighter, the oil can be considered definitely to have a paraffin base. If this gravity is 33° A.P.I. or heavier, the oil has either a naphthene or a hybrid base. If it is between 33 and 40, the oil has an intermediate base.

"2. Note the 'cloud point' of 'key fraction No. 2,' that is, the fraction distilling between 275° and 300° C. (527° and 572° F.) at 40 mm. absolute pressure. If this colud point is reported as being below 5° F., it indicates that wax is absent and that the oil has a naphthene base. If, however, the cloud point is above 5° F., it indicates the presence of wax and that the oil may have a paraffin, an intermediate or a hybrid base.

"It is sometimes possible to classify crude oils as to base by gravity, color and pourpoint. The higher gravity oils are usually paraffin base greenish, or light color and high pourpoint. The asphaltic oils are dark, usually black, low gravity and low pourpoint. A combination of these properties may be found in the mixed base oils. Distillation color pourpoint aid in detecting a naphthene base oil."

SAPONIFICATION AND SAPONIFIABLE OILS

What information have you concerning petroleum products that are used as saponification agents?—A. G.

Although several investigators have reported saponification values for petroleum oils, the majority of the students of the properties of petroleum consider saponification value almost negligible. Gurwitsch-Moore reports, Petroleum Technology, page 112: "It must be remarked that up to the present the saponifiable constituents of petroleum have not been isolated. . . . The saponification value of the bright lubricating oils is very small; for instance, in a Russian cylinder oil in Gurwitsch's laboratory, the saponification value was found to be 0.3, but the value may be quite considerable in dark unrefined residua."

The steam cylinder oils, which are the dark residual oils, made from Mid-Continent oils, give occasionally saponification values of the order of 0.1 to 0.2. Usually the less color the lower is the saponification value.

The mineral lubricating oils are frequently mixed with vegetable and animal oils; these compounded oils will show high saponification values. In fact, the saponification value is used for the purpose of estimating the percentage of such oils that have been added to the mineral oil.

The emulsified oils, used for cutting oils and the preparation of insecticidal sprays, are especially prepared oils that often show a high saponification value. Oils of this type may contain mineral salts, such as calcium and magnesium, and when required, salts of a poisonous character; resins, soaps, animal oils, sperm oil, fish oil, lard oil, cotton-seed oil, and olive oil. The saponification value of these oils may run from a small number to over 60.

PERSONAL PARAGRAPHS

E. A. Carr, district engineer of southwestern division of the Pure Oil Company, has been made assistant to Manager John R. McNutt.

* * *

C. E. Roth, independent oil operator, of Independence, Kans., and Mrs. Roth were in Casper, Wyo., en route to Calgary, Alberta.

* * *

Fero Williams, of the George F. Getty, Inc., was recently elected secretary-treasurer of the Los Angeles Petroleum Accountants Society.

* * *

D. R. Snow, vice president of land, geology and scouting of Barnsdall Oil Company, and family are enjoying a vacation at Eagle Dam, N. Mex.

* * *

Ernest E. Kells, of Petrolia, Ontario, well known Canadian driller, was married at Forest, Ontario, on June 30 to Miss Hazel Gertrude Dodge of that town.

* * *

Leland Stanford, of the legal department of the Consolidated Oil Corporation, has gone to Paris to represent Sinclair interests at the world oil conference.

* * *

R. H. Carr, chief production engineer, the Pure Oil Company, Chicago, Ill., has recently been in the Houston, Fort Worth and Tulsa offices of his company.

* * *

E. M. Carter, hydraulic and mining engineer, Austin, Tex., is engaged in digging a water well for the Carter Oil Company in the bed of the Canadian River near Seminole, Okla.

* * *

G. T. Moir has been appointed chief exploitation engineer of the Shell Oil Company in the Los Angeles district, succeeding Logan Burrell, recently advanced to the chief office at San Francisco.

* * *

W. H. Strang and family have been spending a month's vacation in Pasadena, Calif. Mr. Strang is deputy supervisor of the mineral leasing division, U. S. Geological Survey, with Casper, Wyo., headquarters.

* * *

C. R. McCollom, chief geologist for the Pacific Western Oil Corporation, has resigned his position to enter the independent consulting field with R. R. Templeton, formerly vice president of the same company.

* * *

Roy E. Collom, general manager of the Continental Oil Company's California office, has been making a tour of the Continental's eastern holdings during the past two weeks and is expected to return to his Los Angeles office about August 1.

* * *

Leo Ranney, president of the Ranney Oil Mining Company, New York, and Tulsa, is in California with Mrs. Ranney on business. He expects to return to Tulsa in about a month and will probably make his residence there.

* * *

Frank P. Fisher, of Mount Vernon, Ohio, consulting engineer to the Turner Valley Gas Conservation Board, has been retained as consulting engineer by the city of Chicago in connection with the gas rate dispute in that city. Mr. Fisher is now completing his work with the Turner Valley board.

* * *

W. W. Stein, formerly manager of the Texas Border Gas Company, at Laredo, Tex., and later in charge of pipe line operations for the United Gas system at Jackson, Miss., has returned to Laredo in his former position. J. P. Rogers, manager of the land office of the United Gas Public Service Company, Houston, Tex., has been appointed to succeed Mr. Stein at Jackson. R. W. Williams, manager of the land office at Jackson, has been transferred to Shreveport, La., his place at Jackson being taken by W. W. Riggs, Jr., of Houston.

M. E. Roberts, of the Pure Oil Company, has moved from Odessa, Tex., to Douglas, Wyo.

* * *

Walter F. Skaer, of Hartman and Skaer, oil producers of Wichita, Kans., spent two weeks fishing at Alexandra, Minn.

* * *

B. Frank Graham, refinery salesman, for nine years with Producers & Refiners Corporation, is now with Anderson-Prichard Oil Corporation in the Nebraska-Iowa territory.

* * *

Don Leach, Tulsa representative of the Chicago Bridge & Iron Works, left early this week on a vacation trip, first going to Iowa. He then expects to go to Indiana for a few days.

* * *

Raymond F. Baker, assistant to R. O. Ogarrio, vice president of The Texas Company in charge of production, New York, has been visiting the Houston offices of the company on business.

Men of the Industry

BERT I. GRAVES

Bert I. Graves, general sales manager of the Associated Oil Company, has spent practically all of his adult life in the oil business and with that organization. He was born January 31, 1889, in St. Paul, Minn., and in 1909 after leaving school, got a job as a junior clerk in the pipe line department of the Associated Pipe Line Company, an affiliated company.

After filling various positions in the accounting and personnel departments of the Associated Oil Company, Mr. Graves joined the sales department in 1922 and was sent to the Orient to open an office for the company in Shanghai, China. For over three and a half years he traveled through China, French-Indo China, Siam, Philippine Islands, New Zealand and Australia, opening branch offices, making market surveys, appointing distributors and selling the company's products.

Upon his return to the United States, Mr. Graves was appointed assistant to F. B. Henderson, vice president in charge of sales activities. Upon Mr. Henderson's death in 1929, Mr. Graves was appointed manager of fuel oil, export and cargo sales, and was also a member of the sales committee. In November, 1929, he was appointed general sales manager, in charge of all sales.

Oscar R. Howard, California operator, has been re-elected as a member of the board of directors of the Gilmore Oil Company.

* * *

Theodore Carter, independent operator, has recently moved from Austin to Fort Worth, Tex. He was in Tulsa on business this week.

* * *

Charles L. Reed and family, formerly of Casper, Wyo., are now located in their new home in Tulsa, Mr. Reed is with the Gypsy Oil Company.

* * *

R. E. Nagle and L. J. Burns of the New York offices of The Texas Company were in Casper, Wyo., several days as guests of the Townsend Hotel.

* * *

William Hageman of The Texas Company and Miss Blanche Campbell were married in Nebraska recently and are making their home in Casper.

* * *

O. J. Tuttle, sales manager of the Empire Oil & Refining Company, Tulsa, left the first of the month for a two weeks' vacation at Colorado points.

* * *

H. C. Lehn, chief engineer of the Snow works, Worthington Pump & Machinery Company, Buffalo, N. Y., was in Tulsa last week on company business.

* * *

R. J. St. Germain, geologist and independent producer of Tulsa, is kept busy traveling between Tulsa and Houston, Tex., where he is interested in some drilling activities.

* * *

Max Hechtor, president of Radio Oil Refineries, Ltd., of Winnipeg, Canada, and son, Harold Hechtor, who spent several weeks in the Mid-Continent Field have returned home.

* * *

Francis John, formerly assistant purchasing agent of the Tide Water companies, is now district sales manager of the Harrisburg Engineering Company, at Fort Worth, Tex.

* * *

John H. O'Rear, former vice president of the Superior Oil Corporation, has returned to Tulsa after spending a year at Lexington and Owensboro, Ky.

* * *

W. H. Taylor of Los Angeles, Calif., formerly attorney for the Producers & Refiners Corporation, and one of the original locators of the Lost Soldier oil field, was a recent visitor to Casper, Wyo.

* * *

Frank C. Adams, formerly of Okmulgee, Okla., in the land and lease department of Barnsdall Oil Company, has been transferred to Houston, Tex., where the company has opened a land office.

* * *

W. F. Prendergast, advertising manager, and W. C. Gilchrist, of Imperial Oil, Ltd., Toronto, recently made a tour of the western Canadian provinces in connection with the company's business there.

* * *

Several changes have recently been made in the production department of the Pure Oil Company in the Fort Worth, Tex., and Tulsa offices. H. F. Schoonover, formerly superintendent of production at Tulsa has been transferred to Fort Worth to a similar position there. J. D. McNutt is manager of production for the southwestern division with headquarters in Tulsa and E. A. Carr, formerly chief engineer of the production department, has been made assistant to Mr. McNutt. Herbert Schafer who for many years has been superintendent in the Seminole, Okla., district has been transferred to Tulsa to take Mr. Schoonover's place as general superintendent of production. Under the new set-up the managers of the various divisions still report to R. W. McIlvain, vice president in charge of production, and C. Plummer, assistant general manager of production, both in the Chicago office of the company.

NATURAL GAS DEVELOPMENTS

LANGDON NOMINATED FOR NATURAL GAS HEAD

The report of the general nominating committee of the American Gas Association to be presented to the annual convention in Atlantic City, N. J., in October, follows:

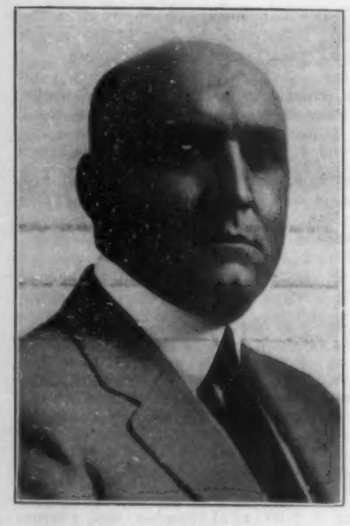
For president—Arthur Hewitt, vice president and general manager, Consumers Gas Co., Toronto, Ontario.

For vice president—N. C. McGowen, president, United Gas Public Service Co., Houston, Tex.

For vice president—Howard Bruce, chairman of the board, Bartlett-Hayward Co., Baltimore, Md.

For treasurer—William J. Welsh, vice president and general manager, New York & Richmond Gas Co.

The nominating committee consists of



L. K. LANGDON

J. K. Swanson, chairman, L. B. Denning, Chester Grey, C. R. Miller, Frank H. Payne and G. W. Stiles.

For directors—Two-year terms: H. O. Caster, Cities Service Co.; B. J. Denman, vice president and general manager, United Light & Power Co., Chicago, Ill.; Henry L. Doherty, president, H. L. Doherty & Co., New York; O. H. Fogg, vice president, Consolidated Gas Co. of New York; John A. Fry, vice president and secretary, Detroit-Michigan Stove Co., Detroit, Mich.; Samuel Insull, Jr., vice president, Peoples Gas Light & Coke Co., Chicago, Ill.; F. A. Lemke, general manager, Humphrey Co., Kalamazoo, Mich.; Clifford E. Paige, Brooklyn Union Gas Co.; T. R. Weymouth, vice president, Columbia Gas & Electric Corp., New York, N. Y.

The following members have been nominated by section nominating committees to serve as section officers for the next association year:

Natural Gas Department: For chairman—L. K. Langdon, Union Gas & Electric Co., Cincinnati, Ohio; for vice chairman—Frank L. Chase, vice president, Lone Star Gas Co., Dallas, Tex.

Accounting Section: For chairman—J. M. Roberts, Peoples Gas Light & Coke Co., Chicago, Ill.; for vice chairman—E. B. Nutt, Standard Oil Co. of New Jersey, Pittsburgh, Pa.

Commercial Section: For chairman—Walter C. Beckjord, Boston Consolidated Gas Co.; for vice chairman—N. T. Sellman, Consolidated Gas Co. of New York.

Industrial Gas Section: For chairman—E. L. Wilder, Utility Management Corp., New York; for vice chairman—F. B. Jones, Equitable Gas Co., Pittsburgh, Pa.

Manufacturers Section: For chairman—D. B. Stokes, U. S. Pipe & Foundry Co., Burlington, N. J.; for vice chairman, Appliance Division—John A. Fry, Detroit-Michigan Stove Co.; for vice chairman, Apparatus Division—Merrill N. Davis, S. R. Dresser Manufacturing Co., Bradford, Pa.

Publicity and Advertising Section: For chairman—Jay Barnes, New Orleans Public Service, Inc.; for vice chairman—Henry Obermeyer, Consolidated Gas Co. of New York.

Technical Section: For chairman—J. A. Perry, United Gas Improvement Co., Philadelphia, Pa.; for vice chairman—O. S. Hagerman, American Light & Traction Co., Chicago, Ill.

Gas Line Finished From West Liberty Field to Excelsior Springs, Missouri

The Missouri Power & Light Co. has completed a pipe line from the West Liberty gas field in Clay County, Missouri, to serve the famous health resort city of Excelsior Springs with natural gas. The line, which begins at the field gathering center in Section 36-52-32 and consists of approximately 14 miles of 6-inch and 3 miles of 8-inch pipe, extends to the town border measuring station at Excelsior Springs, where connection is made with the city distribution system formerly used for the delivery of manufactured gas.

This project was under the general supervision of C. B. Owens, operating engineer of the Missouri Power & Light Co. The engineering was under the direction of B. G. Slining, chief engineer of the North American Light & Power Co.

Contract for the laying of the gathering lines and construction of the main transmission line was let to the Lahar Construction Co. of Boonville, Mo., whose superintendent in charge of pipe line construction is R. H. Fulton. H. R. Kenning, engineer in charge, supervised construction of the main line in the field for the Missouri Power & Light Co. Mr. Kenning was assisted by Dan Crane, chief inspector, and L. J. Smith, engineer.

The line starting at the field and extending 14 miles across fields and along county roads, was built of 6-inch, 15-pound pipe in 40-foot lengths and welded with the ripple method of oxyacetylene welding. The remaining 3 miles, which parallel U. S. Highway 69 and was laid along the edge of a narrow winding road to the Lake-Maurer amusement park, was built of 8-inch, 24-pound pipe in 40-foot lengths. On this part of the line, where absolute freedom from leakage was most important, the pipe was welded by the Aircowelding process.

Free Traffic Uninterrupted

The small amount of equipment required in Aircowelding permitted freedom along the narrow road. The strength and ductility of the Aircowelds was proven when it was necessary to drag roll welded sections several hundred feet to pass obstructions and by the number of short bends, often made within a few inches of the weld, which were necessary to fit the pipe to the ditch following the winding and scenic road.

The most difficult part of the ditching was done with a Barber-Greene ditcher. At the request of the Missouri Power & Light Co. the contractor used hand labor wherever possible to help relieve unemployment in the neighborhood of the line.

The line was coated with No-Ox-Id ahead of lowering.

The West Liberty gas field, the source of gas for the line, is located approximately 3 miles northeast of Liberty, Mo. There are at present 11 producing wells with a total open flow of 4,000,000 feet per day and an average rock pressure of 90 pounds. The wells are producing from a depth of 400 feet from the Midway sand located at the base of the Pleasonton shale and just above the Peru sand. The thickness of the sand averages 15 feet. The discovery well, located on the J. J. Morrow farm, was completed in April, 1931.

The original geological work on this field was done by H. D. Mike Meuffels of the Missouri Power & Light Co. The field was developed by B. I. Hall of Kansas City, Mo., in association with the Missouri Power & Light Co.

Each well is connected to the gathering system through a 35 B Metric iron case 100-pound water pressure meter with volumetric pressure gauge. A setting is provided at the gathering center for the installation of a regulator to control the main line pressure within the limits of delivery demands.

Two-Run Meter Manifold

At the delivery end of the main line, the town border measuring station consists of a two-run meter manifold and reducing station. In one of the meter runs there is a Pittsburgh Equitable 50-pound water pressure No. 5 positive meter and provision is made for the installation of a 4-inch orifice meter in the other run.

The distribution system serves 850 domestic customers and 12 industrial customers, and is expected to connect 60 to 75 heating contracts in the first year of operation under the natural gas franchise. Industrial customers include the major resort hotels, the power and steam plants and the new crystal plant which is being built to produce salt crystals by evaporation of the mineral waters for which the city is famous.

H. D. Mike Meuffels, engineer, of the Missouri Power & Light Co., has been in immediate charge of the work of conversion of the distributing plant from manufactured to natural gas and the extensions and additions to the plant required to take care of the additional connections expected from the introduction of the new fuel. The business section and denser residence sections of the city are to be served from a low pressure system operating at 4 ounces. The remainder, amounting to almost half the plant, will be served from an intermediate pressure system operating at approximately 3 pounds. All of the town plant work was done with hand labor. American cast iron bell and spigot pipe is being used in main extensions.

Operation of the field, line and distribution plant by the Missouri Power & Light Co. will be under the direction of R. L. Rogers, district manager, in Excelsior Springs.

SANTA MARIA LINE

Completion of the new 21-mile, 8-inch line between Santa Maria and San Luis Obispo is scheduled for about September 1 by Santa Maria Gas Co. Cost of the line is estimated by company engineers at $200,000.

WISCONSIN DECISION BLOW TO UTILITIES

The gas industry is vitally interested in the utility development in Wisconsin. The Public Service Commission of Wisconsin, in its decision reducing telephone rates throughout that state by 12½ per cent, the new York Journal of Commerce says, "strikes a blow at the fundamental theory of utility regulation which has prevailed in this country for more than 30 years. That theory is that the public utility, serving the basic needs of the community and endowed with monopolistic powers, should be largely immune from the effects of alternating periods of business prosperity and depression, and should earn an approximate 'fair return' upon a 'fair value' of its property at all times. Its earnings are to be limited during periods of prosperity, and by the same token they should not be reduced during periods of depression. Manipulation of the rate level has been the means whereby earnings are to be fixed at an adequate but not excessive level to produce this fair return.

"The Wisconsin Public Service Commission was asked to authorize a 25 per cent rate increase by the Wisconsin Telephone Co. Instead, it orders a 12½ per cent cut and adds the belief that even after such a slash the rates would be 'unreasonable and excessive.' The primary basis of this opinion is not an excessive rate of earnings of the telephone company on its valuation, but rather the prevailing business depression and consequent reduced purchasing power of the dollar paid for telephone service by subscribers.

"The Wisconsin commission in its opinion strikes at the cardinal doctrine of regulation as expressed in a long line of Supreme Court decisions from Smythe versus Ames down. It says:

"'A business enterprise enjoying a complete monopoly, not harassed by competition, rendering a service which has become an absolute necessity of business and social intercourse, surely has no statutory or constitutional right to a return in this time of general business catastrophe such as it enjoyed when the community from which it derives its revenue was operating successfully.'

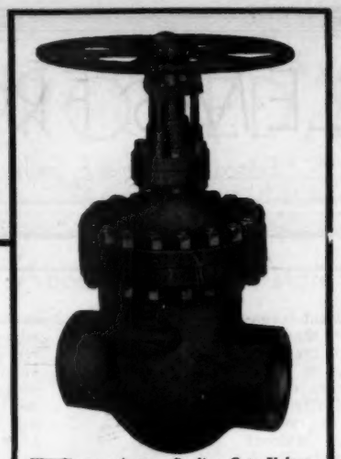
"The argument of the Wisconsin commission also stresses the value of service, as opposed to the cost of service, in the determination of telephone rates. It is claimed that even if the company does not earn a fair return, it is not entitled to higher rates than 'what the services are reasonably worth.'

"The Wisconsin decision illustrates the grave dangers inherent in the abandonment of the 'fair return on fair value' principle of public utility rate making, because of the numerous extraneous factors it introduced to throw the whole subject of regulation into confusion. Fearful of the effects of reduced prices on valuations, some utility men have sought to escape from the valuation dilemma by attacking the whole principle of the use of valuation as a basis of rate making. In doing so they jump from the frying pan into the fire, as the Wisconsin decision shows. A return to the original investment basis of valuation, in the interests of stabilization of utility rates and protection for new capital entering the industry, is the logical position for utilities to adopt under prevailing depression conditions."

CHANGE TO NATURAL GAS

Central States Electric Co., Cedar Rapids, Iowa, is planning to change its system at Creston, Iowa, to natural gas.

Darval Semi-Steel Gate Valve, Dar-a-loy trimmed, Made in all sizes for general field use, pipe lines, drilling through, well control and well flow lines.



We also manufacture Darling Gate Valves of Forged Steel with Dar-a-loy trimmings for well control, flow lines and other hazardous conditions.

As told to the DARLING REPORTER

"WELL, to be quite frank with you, we wondered if Darlings were really worth the extra cost. You fellows said they were, so when we'd been having a bit of trouble we thought we'd give you a chance to prove your point. To make a long story short, you proved it to us—in lowered production and maintenance costs. Naturally we like Darlings. They've been a gilt-edged investment for us."

Many others have found that Darling Valves pay big dividends. Their sound mechanical construction with the revolving gate discs and parallel seats, an exclusive Darling feature, insures satisfactory operation.

The high quality of Darval semi-steel metal and Dar-a-loy bronze trimmings—the exacting workmanship, inspections and tests—all contribute to the long life of Darling Valves.

Write for complete information.

DARLING VALVE & MFG. CO., Williamsport, Pa.

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California Distributors: Hickey Pipe & Supply Co., 3375 East Slauson Ave., Los Angeles, Calif.

DARLING

GATE VALVES

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

PROSPECTS OF WATER DRIVE

After reading an article about using the water flooding methods of recovery in the Bradford Field I want to ask if the same method cannot be made use of in other fields, especially those where the geologists and petroleum engineers say the field is in danger of being ruined by water encroachment. I am especially interested in the East Texas Field and would like to know if there is any chance of turning this water to account, making it an asset instead of a liability, by using the water flooding method in that area. —G. T. E.

Water drives are of two types, natural and artificial. The use of water to increase the recovery of oil was discovered accidentally because of failure to exclude water from wells properly and this water being under pressure moved through the sand and drove the oil ahead of it to other wells.

Having found that this medium could be used to advantage to increase the recovery of oil, engineers since have used this method, following different details of application, depending upon the lithological and stratigraphic conditions.

In relatively flat beds, water may be introduced into scattered wells, driving the oil from several different points toward a group of pumping wells. In a steeply dipping stratum, water may be introduced simultaneously in a row of wells located well down the dip of the structure, in effect floating the oil updip to the wells nearer the crest of the structure. In practice the location of property lines must receive consideration, and the position of water wells so chosen as to avoid driving the oil into neighboring properties.

In the East Texas Field all evidence so far collected by petroleum engineers and production superintendents indicates that there is a natural water drive now under way in that area. The producing sands dip to the west at the rate of 40 to 60 feet per mile and the original water line has been placed at about 3,320 feet below sea level.

These conditions have created a zone of contact between the bottom of a portion of the producing sand and the top of the water, and this water being under a hydrostatic pressure of approximately 1,650 pounds is moving up into the sands and toward the east as the oil and gas are withdrawn. The rate of movement is relatively slow but because of the fact that the original water datum was not definitely measured at the time the wells were drilled it is difficult now to estimate the rate of movement.

This water is hot, having a temperature of about 145° F., and this, together with the pressure under which it exists in the stratum, will cause it to make ideal conditions for water drive if the rate of removal of the oil and gas can be controlled so that this water does not channel through the sand and thereby cut off part of the oil from the wells.

In past geological time these sand lenses, which form the oil-bearing members in the East Texas Field, were charged with oil and gas which probably originated, at least in part, in that portion of the sand lying to the west of the now known field. By the slow process of capillarity and application of water pressure the oil and gas accumulated in the open sand lenses.

If this assumption is granted it follows that there must be openings around the edges of the flat lenses now containing oil and gas through which water may move later and drive the oil ahead of it to the wells penetrating each of them.

The water in all probability will not move upward as rapidly as it will move through the sand lenses because each lens is surrounded almost completely by impervious materials which the water cannot penetrate.

It is possible that there may be a more or less continuous original Woodbine sand member lying at the base of this productive area in the East Texas Field. This sand member should be found immediately above the black shale which lies on the Georgetown lime, and if this is the case it is possible that water entering the western edge of this continuous Woodbine sand section may be driven to the east at a relatively high rate because zones of low pressure have been created along the eastern edge of the field.

It is still too early in the life of the East Texas Pool to make definite statements as to water movement, but it is safe to say that it will not be a field that will lend itself to artificial water flooding, but can be made to give a high per-acre yield of oil and gas if the natural water drive is controlled.

Total yield per acre from this field will be hard to estimate because stratigraphy of wells vary greatly and penetration into the producing zone varies over a wide range of depths so it is possible that many lenses containing oil and gas may not be drilled in time to extract this fluid before the water drive enters the individual lens and causes the oil and gas to move out of it or become so mixed with the water that the recovery will be low.

RIDDING PIPE LINE OF DUST

Thank you for the information regarding damage caused by dust in a gas pipe line. We have been trying various methods of getting rid of this dust, but have not attained any high degree of success. Perhaps you can tell us what methods are being used in other places.—L. D. A.

Pipe line dust has received much study and the method of removal which seems to have gained widest adoption is that of employing oil-contact cleaners. Devices using centrifugal force were tried out first in the effort to meet this problem. They will remove large particles of foreign matter and if efficiently designed will remove much of the fine dust. Strainers of different kinds have been used with success. In California a large cotton bag is placed in a container. The gas enters the bag at one end and leaves the container near the top of the other end, the gas thus having to pass through the bag. The dust collected in the bag is removed at intervals.

In another type of dust remover the gas passes up through trays or compartments filled with oiled excelsior, hair or sea moss. From time to time the material is removed and cleaned. There are differences of opinion regarding the efficiency of this type of cleaner. The device must be of large volume in order that the material will not be clogged up with dirt and the supply of gas shut off. The amount of dust which can be trapped is limited to the amount which will cling to the oily surface of material. When this oiled surface is covered with dirt the gas begins to channel through the material and the device is no longer effective.

In a paper delivered before the natural gas department of the American Gas Association, D. A. Sillers, of the Lone Star Gas Co., said concerning the oil contact cleaner:

"Oil contact cleaners are the type most generally used in the industry for removing dust. Most of the credit for the development of this design falls to the engineers of the Cities Service Gas Co., who developed the original oil contact type cleaner. The natural affinity between oil and dust is very generally known. The device consists of a lower or mixing chamber where all of the gas comes in intimate contact with an oil spray, and an upper or separating chamber where the gas and oil spray are separated and the oil returned to the lower chamber. The velocity of the gas impinging on the oil surface results in an oil spray which completely contacts the gas.

"The efficiency of the oil contact principle is practically 100 per cent as no indication of dust passing through such a device has ever been found. The efficiency of the device depends on its ability to separate the gas from the oil and prevent the oil from leaving the cleaner. A great deal of research work conducted during the past five or six years has resulted in improvements in the separating chamber, which has more than doubled the volume of gas which may be passed through a cleaner of a certain size. The merits of this type of cleaner lie in the complete removal of dust, the fact that it cannot clog up, and the ease with which the precipitated dust can be removed from the device."

WHEN A WELL IS A CELLAR

In a recent report of field activities in The Oil and Gas Journal I note the statement that a "well is a cellar." While I spent some time in the oil country several years ago and have some idea of what the term "cellar" describes I will appreciate it if you can enlighten me further as to just how it was used in the report referred to.—C. A. T.

In making reports of field activities it is common practice to use terms employed by scouts and field men of the oil companies. In this instance it would have been clearer for some readers if the statement referred to had been expanded to say that a cellar had been dug at this well.

A cellar as referred to here is a large excavation under the derrick to accommodate well fittings and permit the handling of pipe into and out of the hole. These excavations usually are lined with timbers but in some cases cement is used for this purpose. In the June 18, 1931, issue of The Oil and Gas Journal are a description and sketch and you will note that the concrete monolith under the derrick is carried and supported on eight 12-inch casing piles sunk to bed rock and filled with concrete. This was done because of the great bed of quicksand in this area. In a recent flood in the north end of the Oklahoma City Field these derricks stood without movement of any kind and this installation proved its worth.

The term cellar as used in connection with an oil field derrick was probably introduced into the vernacular of the oil man because of the fact that it corresponds to the cellar of a building and it usually is dug by hand or horsedrawn scrapers in much the same way as the ordinary cellar.

Why Was It Called That?

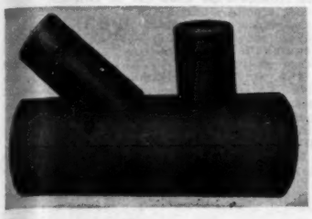
WET GAS AND DRY GAS

The terms "wet gas" and "dry gas" came into use early in the natural gasoline industry. The designation of a natural gas as wet or dry depends upon its gasoline content. No clear line ever has been drawn between the two kinds, but roughly a natural gas which contains less than 1 gallon of gasoline to each 1,000 feet is characterized as dry, or lean, while one containing more than this proportion is called wet. But changing economic conditions alter cases, so it probably would be more accurate to define dry gas as one whose gasoline content is so low as to make extraction unprofitable. Wet gas, called also rich gas and casinghead gas, comes from an oil well and issues from the well at the casinghead. Dry gas comes from a well which primarily at least produces natural gas, though a little oil may come with it.

NEW AND IMPROVED EQUIPMENT

TEMPLATES ELIMINATED IN PIPE-SADDLING JOB

The Midwest Piping & Supply Co., Inc., of St. Louis, Mo., has placed on the market a line of Midwest shaped welding nipples which eliminate all templates when saddling one pipe upon another. The nipple is placed in position before the opening is cut in the pipe upon which it is to be saddled. The correct opening



then is braced easily and quickly from the nipple contact line. Both the shaped end and the square end are beveled for welding.

Midwest shaped nipples (both 90 and 45 degree) are made regularly from standard weight and extra-heavy wrought-steel pipe and geuine wrought-iron pipe. Sizes are from 1¼ to 12 inches inclusive. On special order they can be provided with any type of forged lap or flange. Other angles, lengths and sizes are also available.

VALVE MADE BY A. C. F. HAS ONLY SEVEN PARTS

A development by engineers of the American Car & Foundry Co., 30 Church Street, New York, is the improved A.C.F. Milliken valve having only seven parts. The Milliken valve has been in use for years. Originally it was made with a movable gland in the head, which was held down to the body of the valve by gland bolts. The valve now is manufactured with a solid head construction which avoids the use of glands, gland bolts, bonnets or stuffing boxes. No packing or gaskets of any kind are employed.

This plug type lubricated valve with its seven parts opens and closes with a quarter turn against a positive stop. There are no seats to cut. The face-to-face dimensions of the flanged valves are the same as standard gate valves, so that these Milliken valves can be introduced without changing the pipe lines.

"Nicrofer" (a semisteel, nickel, chromium composition) is used in making castings for the extra heavy duty valves at the Detroit foundry. This mixture gives a close-grained, dense metal of high tensile strength and is particularly suited to valve requirements. The American Car & Foundry Milliken valves are said to be used in 85 different types of industries and for a variety of services. These industries and services include oil refineries, bulk and terminal plants (for handling all kinds of oils and their lighter distillates, such as gasoline, naphtha, kerosene, butane, propane, etc.), natural and artificial gas lines, by-product coke plants, cement plants, dye and cleaning plants, paint and varnish plants. Some of these services are extremely difficult to handle, such as natural gasoline (which boils at atmospheric temperature), hot oils, asphalt, etc., at 600° F. and higher.

A 15-ton six-wheel drive FWD truck has been put into service in Haifa, Palestine, on the $40,000,000 pipe line development of the Iraq Petroleum Co. This huge truck is one of the Four Wheel Drive Auto Co.'s MX models.

Notes About Trade Literature

A 16-page illustrated bulletin, in colors, ready for distribution by the York Ice Machinery Corp., York, Pa., describes the York booster compressor.

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The Durkee Manufacturing Co., Newcastle, Wyo., has issued a new bulletin on its "Straight-lift" pump jack. The bulletin tells how it is installed, something of its design and construction and the savings to be made by its use.

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A loose-leaf catalog describing the new Landmaco threading machines, Landis standard threading machines and Landis automatic forming and threading machines has been prepared for distribution by the Landis Machine Co., Waynesboro, Pa.

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Two new folders are announced by the Northern Equipment Co., Erie, Pa. Folder No. 127 illustrates and describes the new Copes Type DA feed water regulator. Folder No. 129 discusses the new Copes Type SDS-2 governor.

—

The Allis-Chalmers Manufacturing Co., tractor division, Milwaukee, Wis., has released an attractive 32-page catalog which describes in detail the Allis-Chalmers Model "L" track-type tractor. One outstanding feature of the tractor is covered on each page by means of a large illustration and brief copy.

A four-page folder in colors published by the Bass Foundry & Machine Co., Fort Wayne, Ind., gives information regarding Bass "90" oil-fired steel heating boilers.

—

An illustrated bulletin of eight pages describes in detail the "FlexoDisc" packless expansion joint suitable for a variety of conditions including high temperature steam or corrosive fluids, available in sizes from 3 to 30 inches. The expansion element is of alloy steel. The bulletin may be obtained from Croll-Reynolds Engineering Co., Inc., 17 John Street, New York.

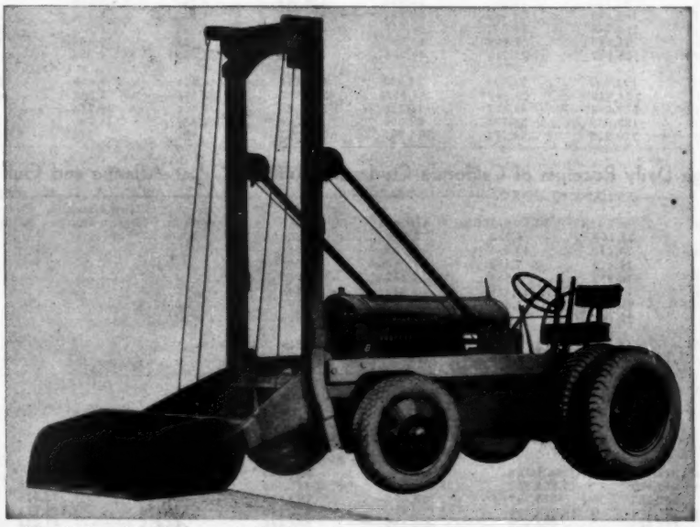
—

Interesting facts about the Dardelet self-locking screw thread, including explanation of its advantages in sucker rod connections, are given in Bulletin No. 5, obtainable from the Dardelet Threadlock Corp., 120 Broadway, New York.

—

An unusually attractive 16-page booklet is the one sent on request by the Air Reduction Sales Co., Lincoln Building, New York. The booklet, entitled "A New Welding Technique for Pipe Line," is printed in colors and contains interesting photographs taken in the field. It discusses "Aircowelding," described as "a new, simplified, faster method of making pipe welds."

PETTIBONE MULLIKEN ANNOUNCES FABRIFORM LOADER



The Industrial Equipment division of the Pettibone Mulliken Co., 4710 West Division Street, Chicago, announces the Fabriform loader for operation with McCormick-Deering industrial tractors. The Fabriform loader, manufactured by the Welded Products Co., Los Angeles, is offered as a fast, economically operated machine for all types of dirt and material-handling jobs. It is light and so constructed that the operator has an unobstructed view, both ahead and to the rear. The loader is readily maneuvered and applicable to road building, building construction, airport, snow removal and similar work where heavy and bulky materials are handled.

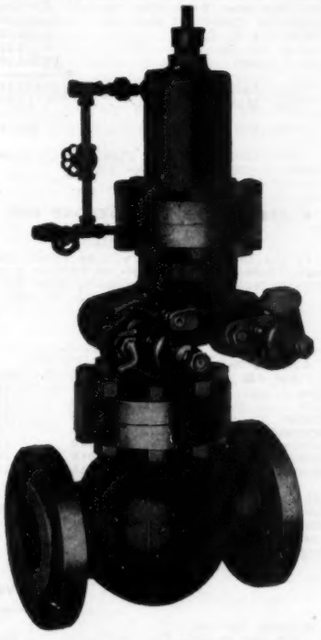
One of the outstanding features is the high-lift and long-loading reach features. The machine has a loading height of 8½ feet and will load any 2-ton truck entirely from the rear. The loaded bucket is of one-half-yard capacity and has a traveling speed of 68 feet per minute. Loader can be operated with a tractor equipped with either wheels or moon tracks.

The loader is electrically welded, affording rigid construction. The lower part of the track uprights is curved toward the tractor to assist in loading the bucket. The weight as well as the power of the tractor is utilized to fill the bucket. New features of loader control are incorporated.

GOVERNOR IS ANNOUNCED BY NORTHERN EQUIPMENT

The Northern Equipment Co., Erie, Pa., announces the new Copes type SDS-2 governor, which controls within close limits any excess pressure from 15 to 150 pounds. It can be installed on simplex or duplex pumps, and on turbine or motor-driven centrifugal pumps. It is suited for excess pressure service in boiler feeding, differential reducing valve service on motor-driven centrifugal pumps and for constant-pressure service up to 150 pounds.

The actuating element is the same four-ply brass sylphon bellows that has been used in more than 600 installations of other types of Copes pressure control valves. It is much heavier and more rugged than the bellows used in former Copes governors. It is said to have made



without sign of breakdown, five complete reversals a second for a period equal to 215 24-hour days and to withstand unbalanced pressures as high as 400 pounds.

The SDS-2 governor is spring-loaded, the loading being applied directly to the sylphon. The spring and sylphon bellows are in a separate chamber from the valve proper. They cannot come in contact with steam or water passing through the valve. Thus remote control of the differential pressure is obtained. In addition, the spring is chromium-plated, to eliminate any possibility of erosion from water introduced into the chamber through the pressure connections.

The design is such that the spring always operates within its elastic limit, assuring long spring life. Valve fittings are accurately designed to give the exact flow characteristics required for each installation. Stuffing-box friction is reduced to a minimum by using the rotating valve stem. This gives added assurance of instant, accurate control. The governor is furnished in all sizes up to 6-inch, with straightway or angle style bodies, and for all pressure standards from 250 pounds upwards. Descriptive literature is available.

"Relays Step Forward" is the title of a four-page bulletin issued by the General Electric Co., Schenectady, N. Y.

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for April

	Runs Month bbls.	Runs Dly. av. bbls.
Gulf P. L. Co.	1,489,648	49,655
Texas P. L. Co.	611,560	20,385
Magnolia P. L. Co.	1,076,368	35,879
Empire P. L. Co.	2,186,018	72,867
Cosden P. L. Co.	614,589	20,490
Stanolind P. L. Co.*	2,700,000	90,000
Oklahoma P. L. Co.	3,333,207	111,106
Other lines*	3,780,000	126,000
Total April	15,791,460	526,382
Total March	16,024,506	516,918
Difference	233,046	9,464
Shipments		
Gulf P. L. Co.	1,473,992	49,133
Texas P. L. Co.	1,214,385	40,476
Magnolia P. L. Co.	1,428,042	47,601
Empire P. L. Co.	2,303,415	76,780
Cosden P. L. Co.	612,372	20,412
Stanolind P. L. Co.†	3,781,170	126,039
Oklahoma P. L. Co.	3,131,010	104,367
Other lines*	3,270,000	109,000
Total April	17,214,286	573,808
Total March	17,661,005	569,710
Difference	446,719	4,098
Stocks		
Sinclair Prairie Crude Oil Marketing Co.*		35,297,000
Gulf P. L. and Gypsy Oil Co.		7,415,543
The Texas Company		3,678,880
Magnolia Petroleum Co.		9,182,199
Empire Pipe Line Co.		4,966,815
Mid-Continent Petroleum Co.		2,471,329
Stanolind Crude Oil Pur. Co.*		15,669,000
Oklahoma P. L. Co.		1,732,153
Carter Oil Co.		3,544,427
Other lines*		17,284,000
Total April		100,242,156
Total March		100,764,337
Difference		522,181

*Estimated. †Stanolind Pipe Line Co. shipments include Texas crude oil.

EASTERN PIPE LINE REPORT FOR MONTH OF MAY

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for April and May:

	April, 1932	May, 1932
Nat. Transit	147,723.99	151,951.45
S. W. Pa. P. L.	69,759.24	71,779.11
Eureka P. L.	280,564.95	276,906.64
Buckeye P. L. (Macksburg)	248,423.27	251,442.44
Buckeye P. L. (Cleveland)	11,868.52	12,377.90
Buckeye P. L. (Lima, etc.)	85,450.96	86,475.79
Indiana P. L.	2,736.17	2,672.22
N. Y. Transit	37,613.87	44,012.00
Tide Water P. L.	22,997.64	25,664.15
Pure Oil	340,142.42	422,749.02
Stoll Oil Ref.	32,902.63	58,053.00
Bradford Trans.	410,384.82	427,172.32
Total	1,730,467.58	1,832,255.95
Daily average	57,348.92	59,105.02

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for April and May:

	April, 1932	May, 1932
Nat. Transit	566,440.30	569,129.70
S. W. Pa. P. L.	447,532.55	465,620.47
Eureka P. L.	201,570.72	289,963.58
Buckeye P. L. (Macksburg)	272,180.88	231,855.64
Buckeye P. L. (Cleveland)	1,468.37	1,708.49
Buckeye P. L. (Lima, etc.)	1,480,881.88	1,381,346.31
Indiana P. L.	1,070,857.66	1,188,666.66
Southern P. L.	35,585.53	43,893.07
N. Y. Transit	191,240.50	192,967.42
Northern P. L.	158,940.28	167,202.66
Tide Water P. L.	480,903.25	412,438.33
Pure Oil	490,475.43	573,755.77
Bradford Tran.	439,477.28	452,206.39
Tuscarora Dev.	223,556.91	273,873.53
Total	6,061,106.52	6,343,527.02
Daily average	202,036.88	201,404.09

Gross Stocks

The gross stocks held by various pipe lines in the oil-producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of April and May:

	April, 1932	May, 1932
Nat. Transit	634,782.71	678,894.46
S. W. Pa. P. L.	453,340.11	518,480.70
Eureka P. L.	1,293,097.03	1,324,629.00
Buckeye P. L. (Macksburg)	285,565.79	277,198.32
Buckeye P. L. (Cleveland)	30,490.78	36,639.14
Buckeye P. L. (Lima, etc.)	3,082,716.14	3,160,170.66
Indiana P. L.	476,841.83	502,451.61
Southern P. L.	178,607.70	197,231.45
N. Y. Transit	184,159.11	167,583.00
Northern P. L.	247,444.39	216,814.96
Tide Water P. L.	940,092.95	883,349.04
Pure Oil	834,185.44	719,101.37
Tuscarora	9,255.63	9,033.34
Bradford Trans.	258,081.53	263,149.84
Total	8,908,661.14	8,825,726.89
Increase	196,468.60	
Decrease		72,934.25

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of April and May showing gross stocks of the above fields:

	April, 1932	May, 1932
Pennsylvania	2,978,189.27	3,052,290.24
Lima	540,408.74	527,816.96
Kentucky	9,997.41	9,997.41
Mid-Continent	4,585,299.50	4,552,128.56
Illinois	15,546.86	2,904.86
Michigan	779,219.36	660,588.86
Total	8,908,661.14	8,825,726.89

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1929	1930	1931	1932
Jan.	81,749	75,907	53,939	53,501
Feb.	81,533	79,256	56,163	55,498
Mar.	84,253	76,658	54,331	57,199
Apr.	83,444	84,536	54,914	57,348
May	69,902	70,546	53,344	59,105
June	58,833	75,430	54,110	.....
July	66,087	68,921	50,723	.....
Aug.	66,087	54,291	51,503	.....
Sept.	67,315	56,595	61,345	.....
Oct.	76,093	58,179	65,595	.....
Nov.	74,831	52,332	59,819	.....
Dec.	74,561	53,999	61,335	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1929	1930	1931	1932
Jan.	165,721	217,623	175,369	136,551
Feb.	169,387	224,355	183,494	169,856
Mar.	161,474	228,846	189,508	158,793
Apr.	169,737	241,845	191,450	202,036
May	184,381	248,383	199,247	201,404
June	185,404	234,401	221,155	.....
July	194,763	207,094	211,632	.....
Aug.	194,946	205,506	224,166	.....
Sept.	201,214	193,999	217,537	.....
Oct.	191,367	157,675	210,831	.....
Nov.	202,743	146,638	196,425	.....
Dec.	186,257	142,001	176,241	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1930	1931	1932
Jan.	13,220,045	11,831,092	9,023,914
Feb.	12,991,561	11,506,489	8,974,350
Mar.	13,247,217	11,012,162	8,802,192
Apr.	13,233,961	11,044,481	8,908,661
May	13,052,953	10,728,239	8,836,726
June	13,396,855	9,903,349	.....
July	13,268,562	9,569,849	.....
Aug.	13,047,051	9,192,457	.....
Sept.	12,812,018	8,492,421	.....
Oct.	12,437,553	8,417,694	.....
Nov.	11,851,330	8,830,386	.....
Dec.	11,751,952	9,119,032	.....

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, June 1	549,815.19
Runs from wells	496,220.49
Other receipts	197,594.54
Regular deliveries	241,708.18
Other deliveries	496,130.73

The amount of Illinois oil run by the Tide Water Pipe Co. in May was 25,664.15 bbls. Deliveries were 38,151.70 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

	Runs	Deliveries
1932—		
May	521,884.64	279,859.88
1931—		
Jan.	468,429.04	669,573.19
Feb.	429,284.54	461,262.85
Mar.	424,638.23	356,663.26
Apr.	421,814.98	282,532.65
May	433,231.80	322,513.95
June	510,805.78	320,258.12
July	520,009.38	289,219.66
Aug.	476,622.56	393,231.06
Sept.	492,183.83	323,012.50
Oct.	493,134.13	325,834.95
Nov.	470,302.63	251,258.48
Dec.	515,771.28	306,623.19
1932—		
Jan.	500,177.13	246,634.10
Feb.	482,561.50	186,010.30
Mar.	565,538.70	270,617.75
Apr.	461,930.92	285,817.91

Tide Water Pipe Co., Ltd., also delivered in May 104,554.14 bbls. Oklahoma oil.

Ashland Refining Co. reports well runs of 144,779.26 bbls. during May.

Average Daily Imports of Crude and Refined Oil at Principal United States Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
June	30,067	10,833	111,767	37,000	20,833	200,500	3,300	5,500	2,167	1,333	12,300	212,800
July	26,387	11,226	104,678	29,323	21,773	193,387	6,903	7,419	4,194	.....	18,516	211,903
August	23,613	15,581	91,742	23,387	25,741	180,064	4,161	3,516	.....	3,163	9,839	197,903
September	27,067	7,267	106,367	30,099	23,967	194,367	4,833	3,333	.....	.....	13,166	197,533
October	53,710	14,484	100,774	36,742	40,645	236,355	6,097	6,871	2,097	1,833	16,903	253,258
November	48,033	28,800	51,667	28,600	12,967	170,067	5,933	10,833	3,033	1,367	19,166	189,233
December	30,258	16,806	121,897	31,645	34,258	234,774	1,968	4,355	.....	.....	6,323	231,097
1932—												
January	19,161	8,161	104,065	34,194	34,903	199,484	4,871	7,226	2,968	1,484	15,677	206,161
February	33,483	10,517	128,483	28,862	34,552	240,897	2,034	5,207	4,319	1,379	12,939	253,837
March	25,806	10,516	167,806	38,677	48,129	290,935	5,936	39,774	.....	1,516	47,226	338,161
April	37,167	18,467	158,233	38,733	39,400	292,000	6,767	44,600	2,167	3,333	54,867	346,867
May	31,161	2,065	170,326	50,774	14,935	269,161	903	710	4,194	1,516	7,323	276,484

Average Daily Receipts of California Crude and Refined Oil at Atlantic and Gulf Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
June	4,367	.....	25,100	6,333	3,800	39,200	.....	.....	.....	.....	.....	39,200
July	6,774	1,194	24,612	11,065	9,902	53,548	.....	.....	.....	.....	1,935	54,903
August	2,453	.....	16,419	7,419	4,290	31,530	.....	.....	.....	.....	968	32,548
September	4,367	5,667	13,933	4,699	7,367	32,933	.....	.....	.....	.....	4,000	36,933
October	2,855	1,129	19,290	16,709	9,323	48,806	.....	.....	.....	.....	3,323	52,129
November	1,000	.....	22,800	11,567	.....	35,367	.....	.....	.....	.....	3,366	38,733
December	3,161	.....	22,484	8,839	6,032	40,516	.....	.....	.....	.....	7,742	48,258
1932—												
January	3,871	1,710	14,483	3,774	5,710	29,548	.....	.....	.....	.....	.....	29,548
February	3,069	.....	9,103	4,861	....	17,034	.....	.....	.....	.....	2,483	19,517
March	1,516	.....	6,065	.....	.....	7,581	.....	.....	.....	.....	.....	7,581
April	3,500	.....	19,333	3,367	4,833	31,533	.....	.....	.....	.....	.....	31,533
May	2,161	.....	15,226	12,774	3,871	40,032	.....	.....	.....	.....	.....	40,032

Gross Production of Crude Oil in the United States for 12 Months

(In Barrels of 42 Gallons)

	Month	California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
1931—										
May:	Month	16,448,960	17,233,867	28,705,584	3,241,366	1,446,274	3,232,568	3,098,419	3,190,000	75,800,138
	Daily average	530,612	559,157	926,086	107,786	46,654	72,018	99,949	102,900	2,445,166
June:	Month	15,641,436	16,673,200	29,139,833	3,175,440	1,344,450	1,850,511	2,936,200	3,186,000	73,982,070
	Daily average	521,381	555,940	971,327	105,848	44,815	61,684	99,540	106,533	2,466,049
July:	Month	16,092,333	16,430,080	28,827,213	3,089,333	1,387,588	1,715,730	3,005,909	3,241,000	73,680,671
	Daily average	519,139	529,680	1,091,200	99,672	41,535	55,345	93,739	107,774	2,538,078
August:	Month	15,668,954	9,517,379	32,279,816	3,141,323	1,165,569	1,584,444	2,907,143	3,167,000	69,331,551
	Daily average	505,451	307,009	1,041,284	101,333	37,599	51,111	90,553	102,161	2,236,502
September:	Month	15,180,610	7,946,330	28,981,525	3,147,030	1,138,380	1,641,324	2,761,230	3,032,000	64,429,029
	Daily average	506,020	264,898	966,051	104,901	37,946	54,713	92,041	101,067	2,180,968
October:	Month	15,651,982	12,951,893	30,736,173	3,177,066	1,173,389	1,822,255	2,797,597	3,000,000	73,195,356
	Daily average	504,903	417,803	991,134	102,486	37,819	58,782	90,247	125,807	2,328,979
November:	Month	14,997,700	16,436,720	28,840,561	3,121,670	1,136,700	1,851,677	2,766,390	3,039,000	72,748,338
	Daily average	499,923	547,891	961,352	104,389	37,890	61,719	90,213	121,560	2,424,944
December:	Month	15,560,984	16,598,299	27,747,651	3,195,643	1,083,143	1,971,817	2,816,769	3,046,000	72,041,309
	Daily average	501,967	535,429	903,860	103,182	34,998	63,607	90,863	117,581	2,343,263
1932—										
January:	Month	15,532,141	13,664,149	26,410,313	3,170,527	1,101,616	1,792,398	2,444,164	3,566,000	67,681,373
	Daily average	501,037	440,779	851,946	102,277	35,536	57,819	78,844	115,032	2,183,270
February:	Month	14,616,862	11,806,190	23,858,375	2,838,239	1,008,562	1,617,087	2,420,224	3,294,000	61,460,139
	Daily average	504,030	407,110	822,703	97,891	34,778	55,762	83,456	113,586	2,119,315
March:	Month	15,575,916	12,997,615	26,162,647	3,042,929	1,062,897	1,703,145	2,617,392	3,553,000	66,715,543
	Daily average	502,449	419,278	843,956	98,159	34,287	54,942	84,432	114,613	2,152,114
April:	Month	15,524,000	12,718,020	25,855,442	2,974,080	1,048,620	1,858,957	2,525,040	3,684,000	66,188,159
	Daily average	517,000	423,934	861,848	99,136	34,954	61,965	84,168	122,800	2,206,272
Total 12 months		186,492,897	165,063,205	342,577,238	37,428,804	13,989,190	21,641,873	32,886,467	41,777,000	841,956,674

CLASSIFIED ADVERTISING

For Sale—Equipment

ERIE CLASS "E" steam engine developing 60 H.P. at 225 R.P.M., for sale reasonable. For details, write, Wisconsin Tissue Mills, Menasha, Wis.

FOR SALE—DERRICKS
2—122' Seamless Steel Changeover Derricks; 2—126' Seamless Steel Standard Derricks; 1—122' Seamless Tubular Rotary Derrick. All are brand new Slater derricks and are now located at Tulsa and Seminole. Have placed extremely attractive prices on them for immediate disposition.
WARNER S. McCALL, Receiver for
JOS. GREENSPON'S SONS IRON & STEEL CO.
ST. LOUIS, MO.

200 AMP. General Electric Arc Welder; portable; 220 V. 3 ph. 60 cy. Complete. Like new. $350. 7x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $225. 8x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $250. 36"x18' Fifield Screw Cutting Lathe. $650. Also large stock of lathes, shapers, pipe machines, bolt threaders, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West Second St., Cincinnati, Ohio.

GASOLINE PLANT BARGAINS
We are dismantling gasoline plant near Allen, Okla. Bargains in various size tanks, machinery and pipe. Phone L.D. 501 or write Tulsa.
PRODUCERS PIPE AND SUPPLY CO.

TWO 250 H.P. Scotch Marine boilers, 3 condensers 40'x8'x8', 4 stills 6'x25', good condition, little used; two 6,000-gal. steel tank cars; tanks, pipes, 2,500 feet side track, etc. Address S. J. Andalman, 130 North Wells St., Chicago, Ill.

FOR SALE—Dealer closing out entire line of Sullivan Company products.
Konset—$1.25 gallon, now priced 75c.
Slushmix—$42.50 Ton, now priced $25.
Gelite—$40.00 Ton, now priced $25.00.
Stock guaranteed to be first class. Write Box F-251, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—CONTRACTOR'S EQUIPMENT
Barber Greene Ditching Machine No. 47188 with capacity of 21"x5'6"—Model 44B; Case Tractor No. 68793 with crane attachment; 7-ton Fordson Road Rolling Machine, F 1535-5. Excellent lot of equipment having been used on one job only. Now located at Miami Beach, Florida, and will be offered at extremely low price for immediate disposal.
WARNER S. McCALL, Receiver for
JOS. GREENSPON'S SONS IRON & STEEL CO.
ST. LOUIS, MO.

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WANTED—30,000 feet of plain end or screwed pipe from 4 to 10-inch, must be low price. Reply by letter stating shipping point. American Engineering Co., Chatham, Ontario.

Equipment Wanted

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Wanted

WANTED
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3—Blow Cases 3'2"x10'6"x⅜" Steel Plate, Welded.
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3—Meriam Liquid Flow Meters, Indicating Type.
Plumbite, Caustic and Acid Columns, 6" and 8" by 21' and 22'.

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FOR SALE—Oil Lease, Royalty or Land in Fee, of the SW¼ of Sec. 23-19-9, Creek Co. Wire or write me offer. Settling up Estate. Must be sold. Henry Harman, Custer, Okla.

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Leases—Production

MR. BROKER AND INVESTOR
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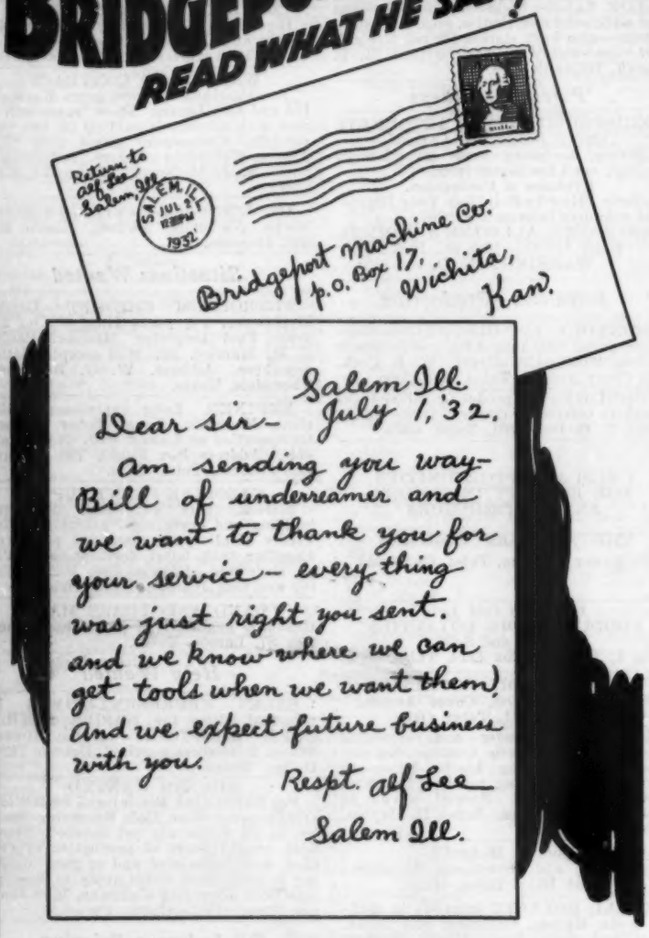
Return to
Salem, Ill
SALEM, ILL.
JUL 21
1932
Bridgeport Machine Co.
P.O. Box 17.
Wichita,
Kan.
Salem Ill.
July 1, '32.
Dear sir-
Am sending you way-Bill of underreamer and we want to thank you for your service - every thing was just right you sent. and we know where we can get tools when we want them) And we expect future business with you.
Respt. alf Lee
Salem Ill.

On June 15th., Mr. Lee rented a 5 3/16" Regular Swan Underreamer from us. The order was shipped within an hour or two of the time it came in, and the tool was returned to us on July 6th.

While this tool was out 21 days, we only billed Mr. Lee for our minimum rental charge of $50.00 for 10 days, plus 3 days extra at $2.00 per day, making a total of only $56.00 rental charge for the tool. We charged him nothing for the 9 days the tool was in transit, going and coming. We also allow a credit for transportation up to 10% of the rental charge, when receipted transportation bills from a public carrier are returned to us with the customer's request for this allowance. For example, Mr. Lee's credit on this rental would be $5.60.

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